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DRAFT

ENVIRONMENTAL STATEMENT

ON

*[California. Dept. of
public works. Division
of highways]*

CONTROLLED ACCESS HIGHWAY LOCATION

OF

ROUTE 84

IN

SAN MATEO AND SANTA CLARA COUNTIES

AND

THE CITIES OF MENLO PARK AND PALO ALTO

BETWEEN

SANTA CRUZ AVENUE

AND

THE DUMBARTON BRIDGE

6.4 MILES

04-SM, SCL-84 23.2/29.6

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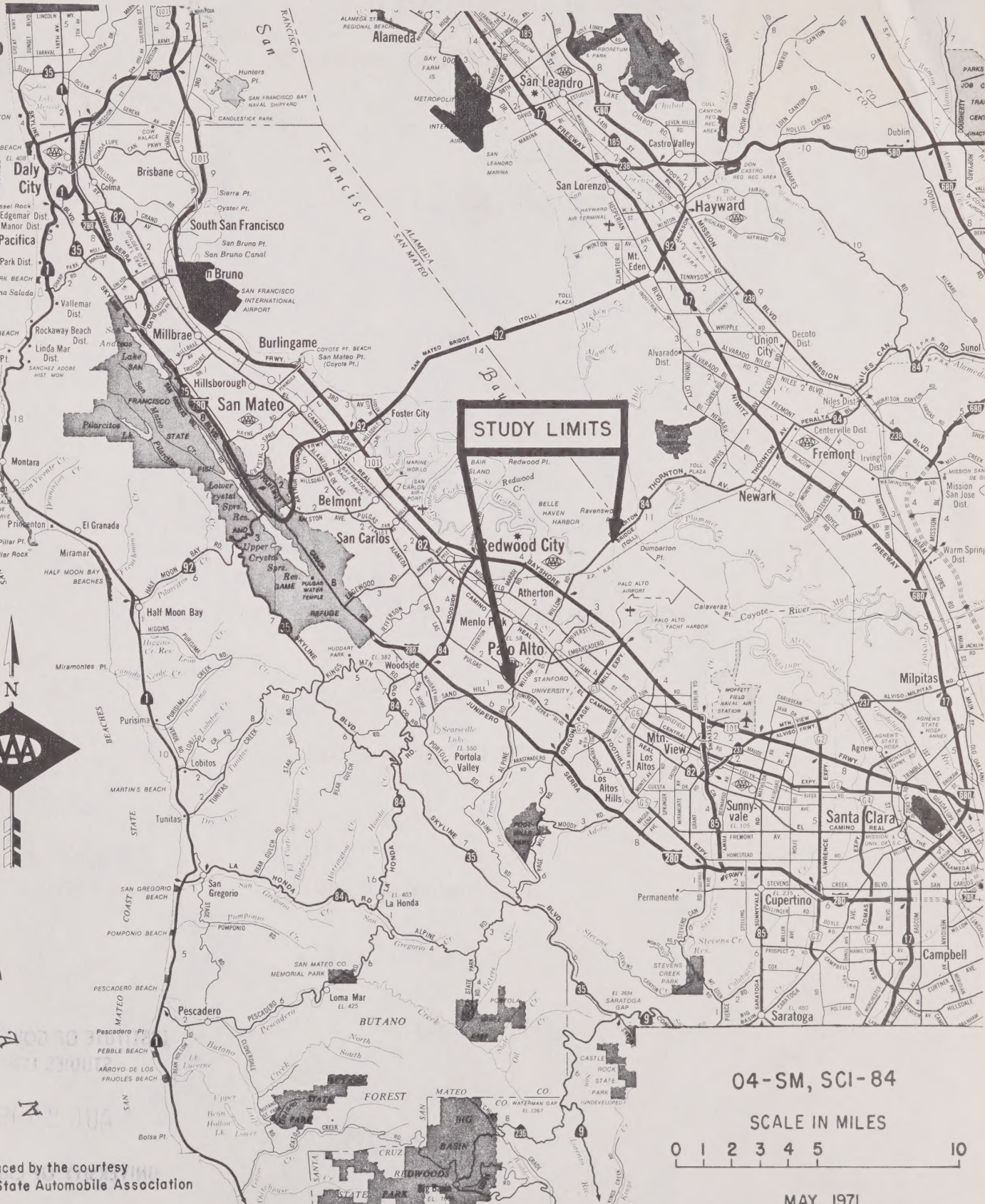
AUG 20 1979

MAY 1971

UNIVERSITY OF CALIFORNIA

San Francisco

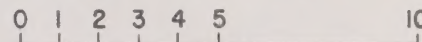
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SCALE IN MILES



MAY, 1971

ENVIRONMENTAL STATEMENT

I. DESCRIPTION OF PROPOSAL

It is proposed to construct a four-lane divided controlled access highway facility for the 6.4-mile portion of State Highway Route 84 in Santa Clara and San Mateo Counties between Santa Cruz Avenue and the Dumbarton Bridge. A basic 49-foot median and a minimum 170-foot right of way width are proposed in developed areas varying to a 70-foot median at the easterly end across undeveloped lowlands. The median width will provide for the addition of two more lanes in the future when the need arises.

The proposed routing traverses areas under the jurisdiction of the cities of Palo Alto and Menlo Park as well as unincorporated segments of both counties. It coincides with or closely parallels Willow Road, a two-lane city street under the jurisdiction of local agencies west of Route 101 and a conventional two-lane highway under State jurisdiction (as Route 84) to the east. The proposed project is popularly known as the Willow Expressway.

West of Route 101, the proposed expressway generally has a fully or partially depressed roadway section. To the east, it is proposed to be essentially ground level because of engineering problems. Some grade separation structures are proposed on the fully depressed portions. Signalized intersections will be provided at street crossings along the partially depressed and ground level portions.

A more detailed description of the project and discussion of engineering, economic and environmental aspects are contained in the attached Report of Route Studies dated May 1971.

II. PURPOSE

Although existing Willow Road is the major east-west traffic artery in its corridor, it is not continuous for about one-half mile in the vicinity of El Camino Real (State Highway Route 82). Traffic must follow a circuitous routing via El Camino Real and Alma Street to cross the Southern Pacific Railroad.

In addition to its discontinuity, existing Willow Road is inadequate to accommodate existing traffic volumes. Portions are quite narrow with poor alignment and sight distance. Congestion overflows to adjacent residential streets as drivers search for alternate routes.

Present average daily traffic volumes on existing Willow Road range from 11,500 to 25,000 vehicles. The route serves as access to Stanford University and Hospital, Stanford Shopping Center, Veterans Administration Hospital, industrial parks, numerous administrative-professional buildings and large apartment complexes as well as downtown Palo Alto and Menlo Park. East of Route 101, Willow Road is the principal access to the Belle Haven and East Palo Alto communities. Local developments now under way or proposed along or adjacent to the Willow Road will impose even greater traffic demands upon the corridor.

An improved and continuous east-west highway facility in the Willow Road corridor is needed to adequately accommodate existing traffic and future increases anticipated due to community growth taking place pursuant to local and regional general plans. All general plans indicate a major continuous east-west route in the Willow corridor connecting Interstate Route 280 to the East Bay counties and beyond via the Dumbarton Bridge. The proposed expressway could also provide the roadway for future bus transit or possibly new forms of transportation.

The neighborhoods along existing Willow Road would benefit from the expressway construction. Traffic on many of the presently congested streets would revert to a residential nature, thereby making the neighborhoods more viable. By reducing traffic conflicts and congestion, accidents would be reduced. Bicyclists and pedestrians would have a safer and more relaxing atmosphere.

III. ENVIRONMENTAL IMPACT

The Willow corridor is highly developed and experiences the same urban problems brought on by growth processes as in the entire mid-peninsula area. These problems consist of (1) inadequate transportation facilities, (2) acute housing shortages in the low and medium family income groups, (3) a minimal amount of available developable land and (4) a transition of land use from low density residential to relatively expensive multiple family and commercial and office building uses - further adding to an already acute low cost housing shortage.

The major negative effect upon the communities by the expressway would be the loss of living units. This has been expressed also as a major concern by the communities. The expressway would either require 268 or 428 living units depending on the precise alignment east of Bayshore Freeway. If the alignment is to the south of Willow Road from Bayshore Freeway to the Dumbarton Branch Railroad tracks only 17 living units, all from East Palo Alto, would be required. However, if it was aligned to the north side of Willow Road it would require 160 living units from Belle Haven (Menlo Park) in addition to the 17 from East Palo Alto.

It is reasonable to project that some economic growth will occur, with or without the Willow Expressway. However, the expressway by reason of providing increased accessibility will increase the development potential of the area. To that end, the expressway can contribute in an indirect way to the area's development.

The expressway will also create environmental benefits. Reduction of the irritants of traffic congestion will enhance the communities. Residential streets now burdened with traffic would revert to a quieter neighborhood character. Safety of pedestrians and bicyclists would also be enhanced. By reason of improved access, job opportunities, education and emergency services will be more readily available to a broader range of persons.

The proposed expressway will expose some neighborhoods to increased vehicle emissions. However, there will be a commensurate decrease in air pollution in other neighborhoods now experiencing traffic congestion. There should not be any material effect on regional air quality problems since total traffic within the air basin is expected to be essentially the same regardless of distribution. Furthermore, regional air quality is expected to substantially improve in future years as a result of legislative controls on vehicle emissions and stationary sources. The expressway is not expected to be in operation for a number of years, by which time the beneficial effects of these controls should be felt.

Discussed below are the sensitive areas disrupted by or within the influence of the proposed highway facility. The disruptions are confined to the highway corridor. However, measures are proposed to mitigate the impact of these changes. In some cases, the measures have been viewed by the communities as a betterment of the existing condition. Furthermore, when viewed from the macro-socio economic considerations, the proposed highway with its many companion design features jointly worked out with the local staffs will provide benefits to the entire region.

1. Stanford Golf Course

At Santa Cruz Avenue and existing Willow Road, the expressway would require a small portion of the Stanford Golf Course (one entire hole and the tee for another). Discussions were held with the Stanford University Athletic Department and there was a general consensus by the University staff that the golf course could be reoriented slightly to accommodate the State's requirement.

2. El Palo Alto

El Palo Alto is an ancient redwood tree located along the Southern Pacific Railroad near San Francisquito Creek. It is State Registered Landmark No. 2 and the namesake of the City of Palo Alto. The expressway would pass to the south of the tree and be depressed a minimum of 20 feet. At the suggestion of expert dendrologists, the expressway will be kept approximately 100 feet from the tree to avoid disturbance of its root system. Water and electrical power will be perpetuated at the site to allow continued maintenance of the tree. Public pedestrian access is also to be continued.

A proposal to create a linear park running from El Palo Alto to Middlefield Road to reestablish park and park-like uses along San Francisquito Creek is discussed in Section IV following.

3. El Camino Park

Closely associated with the El Palo Alto site is El Camino Park. This park is located between El Camino Real and the Southern Pacific tracks paralleling Alma Street. The land belongs to the Stanford University and is leased to the City of Palo Alto. The park is approximately 11 acres in size and is developed with a baseball field (semi-pro), a soccer field, restroom facilities and a Veterans Building on the southerly 10 acres. The northerly one acre is a planted inactive area and is bisected diagonally by a high-volume traffic connection of El Camino Real and Alma Street. It is this northerly one acre which would be affected by the expressway. The expressway would require about one-half acre of land from the park which would be replaced by the linear park proposal.

4. Hopkins Park

This small 1.1 acre parcel undedicated and not officially named but used for park purposes, lies to the southeast of El Palo Alto. It is partially developed as a park with a pathway, lights and sprinkling system. The portion close to El Palo Alto consists of young redwoods. Other portions encompass San Francisquito Creek. The expressway will require the major portion of this parcel. The proposed linear park would replace this loss.

5. San Francisquito Creek

San Francisquito Creek is a natural water course running from Searsville Lake to San Francisco Bay. Through the

area of the proposed project the creek has cut a channel approximately 20 feet deep with near vertical walls. The water flow is seasonal and during the later summer months generally the only water in the creek is found in a few scattered pools fed by street runoff from storm drains. For the most part the banks are heavily vegetated with a mixture of native (including poison oak) and exotic plants. The nonaquatic wildlife appears to be limited to small animals such as squirrels, mice and other rodents and small birds. The aquatic wildlife appears to be limited to indigenous mosquito fish, squaw fish and frogs, and occasionally some hardier semi-tropical fish apparently introduced from local aquariums.

San Francisquito Creek would be directly affected by the expressway proposal at four locations. The first would be a crossing east of Santa Cruz Avenue near the location where existing Willow Road now crosses it. The crossing would be at ground level and would be made on a bridge structure. The new bridge would be similar to the existing one and would have minimum impact upon the creek. A similar structure would be provided near Lexington Drive to provide continued city street access from the northern portion of the Menalto neighborhood to Middlefield Road. This crossing should likewise have a minimal impact on the creek.

The two other points of contact with San Francisquito Creek would be at Alma Street and at Middlefield Road. Easterly of Alma, 1000 feet of creek channel would be realigned to allow the expressway to be depressed twenty feet to cross under Alma Street, the Southern Pacific mainline tracks and El Camino Real. At Middlefield Road approximately 700 feet of winding creek channel would be bypassed by a conduit to allow for a depressed intersection of Middlefield Road and the expressway.

As discussed in Section IV, both existing and relocated portions of San Francisquito form the focal spine of the proposed linear park.

6. Willow Oaks Park

The expressway would require a 0.1 acre portion of Willow Oaks Park located near Gilbert Avenue and Willow Road in Menlo Park. This park is developed with tennis and basketball courts, a children's play area and a small recreation building. It is about three acres in size. Replacement land appears to be available to restore all park facilities.

7. Bay Lands

Between the Southern Pacific-Dumbarton Branch Railroad line and the Dumbarton Bridge lies an area of partially developed Bay lands. In this area there is some fill for industrial development; Ravenswood Slough, which has been diked and terminated at existing Willow Road; salt evaporation ponds; a PG&E major substation and an area of managed wet land used as a duck club. The area to the north of existing Willow Road is in a proposed National Wildlife Refuge.

The expressway alignment would follow the existing alignment of Willow Road. It is anticipated that widening would be to the south thus not conflicting with the proposed Wildlife Refuge, the semi-natural state of Ravenswood Slough, or the managed wet land used as a duck club. If this expansion is placed entirely on fill on the south, there would be some diminution in the open water area, mainly from a single salt water evaporation pond.

IV. UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATION MEASURES

The major unavoidable adverse environmental effects of the expressway would be upon the housing stock; neighborhoods by reason of an increased noise level; the parks; and San Francisquito Creek.

The effect upon the persons to be displaced will be mitigated by the use of the State's replacement housing program. The program not only provides intensive aid in locating replacement properties but cash grants to the displaced individuals and families sufficiently large to secure the available properties. For those persons who find that suitable housing just does not exist even at higher rates, it is possible for the State to cause replacement units to be built. Currently the State owns several suitable parcels in the area where housing could be constructed.

To minimize increased noise levels in residential neighborhoods, contiguous to the expressway, it would be partially or fully depressed through much of the project areas and noise attenuating barriers would be extensively used. Studies show that the outside ambient noise level can generally be held to a maximum of 68-70 dBA for those homes which would be about 100 feet from the edge of pavement through utilization of noise attenuation features. Proposed legislative controls are expected to further reduce the noise levels from vehicles.

To reestablish the size and utility of El Camino and Hopkins Parks, the lands surrounding El Palo Alto, and the parklike areas along the southerly banks of San Francisquito Creek, the relocated creek channel could be incorporated into a new park area. This new park area could be located on lands the State would be acquiring for this route between the current creek channel and East Creek Drive. The park area would be approximately the same size as the lands required from the parks and the current public ownership of a part of San Francisquito Creek. The park as conceived would be a series of rock walled terraces planted in grasses and shade trees on the north side of the creek and back into native shrubbery on the south side. The parks would be tied together by a series of hiking and bicycling trails with bridges and fords. This park concept has the cities' support. In fact, the cities are currently considering the possibility of extending the trail system, which would be started in this area from Searsville Lake to the Bay Lands Nature Preserve on San Francisco Bay. The joint State-city park proposal would extend from Stanford Shopping Center to Middlefield Road.

Because of the possibility of small annual steelhead migration in San Francisquito Creek, consideration is being given to a drainage groove in the conduit at Middlefield Road to allow low waterlevel passage of the young fingerling back to the Bay.

At Willow Oaks Park preliminary plans indicate that by replacing the 0.1 acre of park land with approximately three-tenths acre of excess land on the west side of the park fronting on Gilbert Avenue, full usage of the park can be continued. The park would be screened from the expressway by heavy landscaping and a noise barrier. The expressway would be 5 to 6 feet depressed at this point. This park, too, could be connected to the series of hiking and bicycling paths.

Extensive landscaping throughout the project would be recommended to provide an attractive setting to both motorists and adjacent development. Use of textured retaining walls, architecturally proportioned structures and special block fencing would contribute to a pleasing appearance.

During construction, contract specifications will include measures to minimize water pollution. Permanent erosion control features such as paving of erodible ditches and seeding cut and fill slopes are to be constructed concurrently with other work and at the earliest practical time. The contractor is to further provide temporary pollution control measures such as dikes, basins, ditches and application of straw and seed, which become necessary as a result of his operations. The contractor will also be required to exercise special techniques to maintain the water quality of San Francisquito Creek.

V. ALTERNATIVES

The Highway Commission on March 28, 1962, adopted a future freeway location for Route 84 between Santa Cruz Avenue and the Dumbarton Bridge. This routing essentially coincides with the subsequently recommended expressway for the 1.4 miles westerly of Stanford Shopping Center. To the east, it turned southerly of Willow Road traversing developed residential areas along the common boundary between Palo Alto and Menlo Park. At the time of adoption the cities were not in agreement on the route location. Subsequently there was also opposition to full freeway development. As a result and in view of the fact that the adopted routing was very disruptive to housing (requiring 665 living units compared to a range of 268 to 428 on the expressway), the cities and counties petitioned the Highway Commission to reopen the routing matter. There was no public support whatsoever for the adopted routing at the 1970 public hearings discussing the new studies.

Other alternative alignments for an expressway were explored in an attempt to find a suitable one through the Willow corridor which would have less impact than the proposed line on the housing stock. None were found which would substantially reduce total number of living units required and at the same time not decrease the utility of the expressway nor markedly increase the impact on physical environment.

As the ecological impact of this expressway alignment is concentrated between Middlefield Road and El Camino Real, consideration was given to the possibility of going around the creek and park areas to the north in Menlo Park. However, that routing does not appear to be desirable because its impact would be even more severe upon the area. The expressway, because of high traffic volumes, cannot intersect at grade with El Camino Real. It must go over or under El Camino Real to eliminate an otherwise congested signalized intersection. For the expressway to be depressed north of the creek and then to cross it at Stanford Shopping Center would mean that the roadbed would intersect the creek at approximately a depth of 20 feet. The only means, then, for continuing the stream would be to use a massive siphon. For all practical purposes this would sever the stream. For the road to cross over the top of the railroad would mean structures rising a minimum of 30 feet over the rails. This has been deemed by the local community to be undesirable because of the visual impact and the increased noise levels.

At the public hearings and in correspondence, there were suggestions that the proposed expressway was not needed and that Willow Road could be widened from two to four lanes on its existing alignment. Some speakers recognized the desirability of an extension of Willow Road across the railroad and El Camino Real to eliminate the present discontinuity.

With regard to the above suggestions, conventional street widening west of Stanford Shopping Center appears to cause no serious problems, although it would not be as environmentally desirable as the proposed expressway which is generally depressed easterly of the westerly crossing of San Francisquito Creek. Any possible new alignment to eliminate the discontinuity between Stanford Shopping Center and Middlefield Road would be concerned with the same ecological and environmental aspects as the proposed expressway within these limits. However, it appears there would be as great, if not greater, residential disruption without the opportunities for the mitigating measures proposed on the expressway for development of a linear park. Widening of Willow Road from Middlefield Road easterly to Route 101 would place traffic closer to existing homes, causing greater noise and less safety because of lack of access control.

It is concluded that while widening existing Willow Road would accommodate current traffic, it would have no reserve capacity to handle the future traffic increases that are anticipated. As such, any widening could only be considered an interim measure essentially perpetuating existing problems. It would be of increasing impact to those living along Willow Road without the opportunities for mitigating measures such as noise attenuation, landscaping and access control.

VI. RELATIONSHIPS BETWEEN LOCAL SHORT-TERM ENVIRONMENTAL USES AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

In that the route passes through highly urbanized areas and the facility in and of itself will not directly cause further urbanization nor change or prolong man's current usage of the natural resources, there is seen to be no adverse change in maintenance and enhancement of a long-term productivity. The region's environmental future is not being predetermined by this particular facility. The future of the area is within the local community's control.

The need of a major east-west traffic facility in the study has been recognized by the communities as early as the 1930's. This need is becoming more apparent as traffic on local arterials is overflowing into neighborhood streets. The recognition is reflected in the endorsement of the project by the cities of Menlo Park and Palo Alto and the two counties. The highway facility is included in all regional land use and transportation plans.

The expressway will not only enhance the short-term uses but its companion features will certainly harmonize with the long-term productivity and objectives of the communities. The expressway will provide needed transportation service. It would further allow proper planning and development of

the area which might otherwise be strangled for the lack of a good transportation corridor. It should be noted that the expressway could provide a roadway for other modes of transportation such as mass bus transit in the future should the need arise.

The diversion of traffic to the expressway and consequently the relief to residential streets will make the neighborhoods bearing the traffic problems more viable. The more efficient characteristics of expressway will decrease the air and noise pollution from the macro-viewpoint. The replacement of the existing at-grade crossing of the Southern Pacific Railroad tracks at Palo Alto Avenue with the expressway underpass will eliminate a hazardous condition.

The joint jurisdictional proposal of the linear park concept in conjunction with San Francisquito Creek realignment tied together with hiking and bicycling trails will provide recreational enjoyment for present and future generations.

The U. S. Army Corps of Engineers has investigated the feasibility of improving San Francisquito Creek to prevent flooding, which has occurred. The Division of Highways will continue to coordinate with the Corps of Engineers and other flood control agencies on this problem.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

This facility is not viewed to substantially limit the range of beneficial uses of the environmental resources of the area. With local cooperation the natural resources of the area, such as San Francisquito Creek, may be more fully developed for public use and enjoyment.

VIII. COORDINATION

Numerous State, federal and local agencies were notified of the expressway proposal and invited to comment. The Department of Interior expressed interest in protection of El Palo Alto. The Department of Fish and Game requested that consideration be given to a possible run of steelhead in San Francisquito Creek. Measures to accommodate both these aspects have been discussed in previous sections.

By far the greatest expressed public concern was housing. Many persons felt that comparable housing for those displaced by the proposal cannot be found in the area and that replacement should be on a one-for-one basis to maintain the housing supply. Because of this concern, extensive studies were made on the availability of replacement housing, economic orientation of displacees and their neighborhoods and opportunities

for construction of new housing. These issues are discussed in considerable detail in the attached Report of Route Studies.

Other issues of concern were noise, air pollution, the effect upon parks, El Palo Alto and San Francisquito Creek. As discussed previously and in the Report of Route Studies, mitigating measures are proposed where possible to offset adverse effects. Construction of the expressway will enhance the opportunities for realization of a linear park along San Francisquito Creek.

The studies leading to the Willow Expressway proposal were a joint effort with the cities of Menlo Park and Palo Alto and Santa Clara and San Mateo Counties. Recognizing the need for a continuous east-west route, the local jurisdictions formed a committee to explore an expressway alignment as an alternate to the adopted freeway. The Committee, known as the Willow Road Committee, took the lead in evaluating alternatives with technical assistance provided by the Division of Highways.

Attach. (Report of Route Studies)

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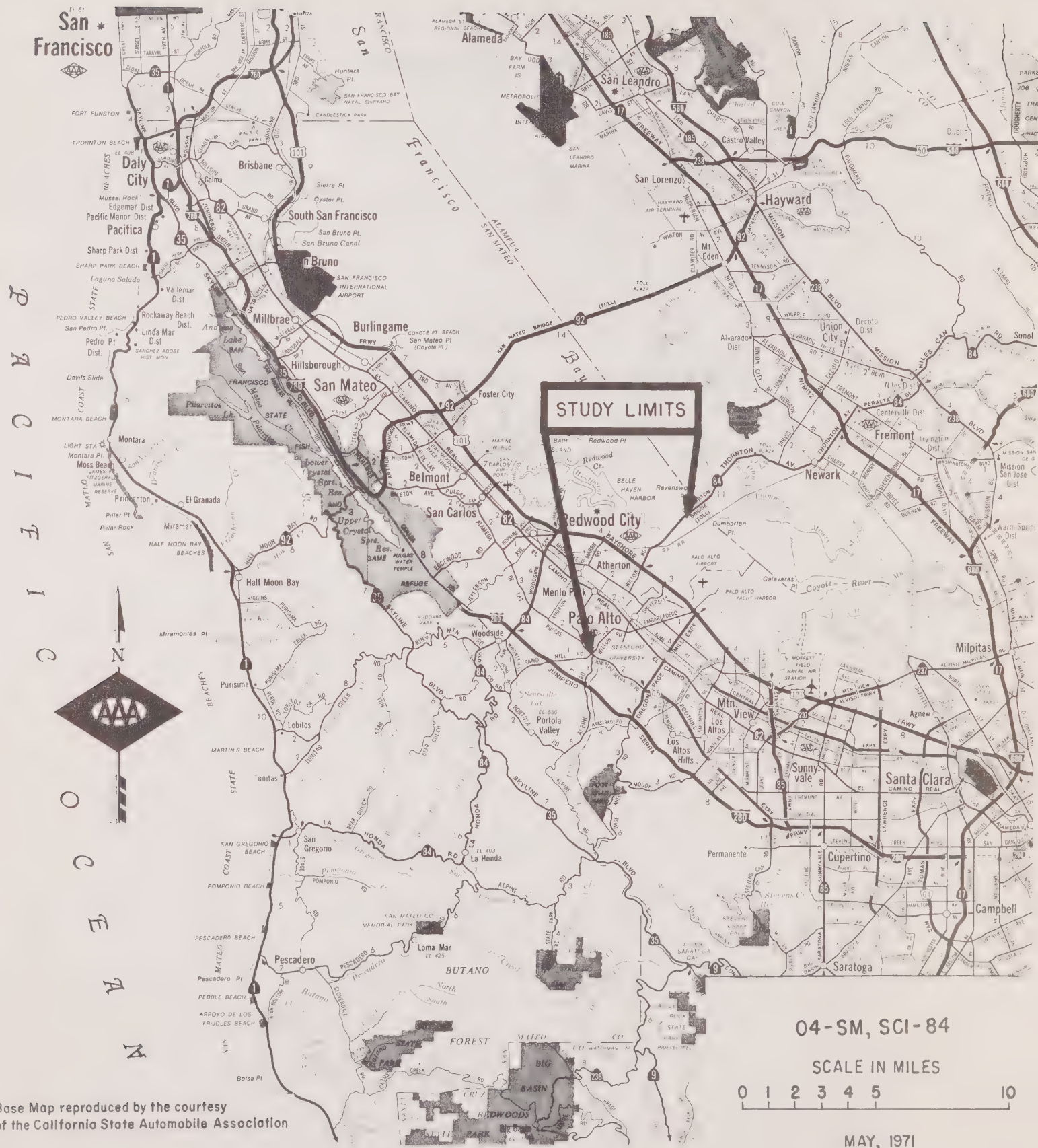
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At Willow Oaks Park preliminary plans indicate that by replacing the 0.1 acre of park land with approximately three-tenths acre of excess land on the west side of the park fronting on Gilbert Avenue, full usage of the park can be continued. The park would be screened from the expressway by heavy landscaping and a noise barrier. The expressway would be 5 to 6 feet depressed at this point. This park, too, could be connected to the series of hiking and bicycling paths.

Extensive landscaping throughout the project would be recommended to provide an attractive setting to both motorists and adjacent development. Use of textured retaining walls, architecturally proportioned structures and special block fencing would contribute to a pleasing appearance.

During construction, contract specifications will include measures to minimize water pollution. Permanent erosion control features such as paving of erodible ditches and seeding cut and fill slopes are to be constructed concurrently with other work and at the earliest practical time. The contractor is to further provide temporary pollution control measures such as dikes, basins, ditches and application of straw and seed, which become necessary as a result of his operations. The contractor will also be required to exercise special techniques to maintain the water quality of San Francisquito Creek.

V. ALTERNATIVES

The Highway Commission on March 28, 1962, adopted a future freeway location for Route 84 between Santa Cruz Avenue and the Dumbarton Bridge. This routing essentially coincides with the subsequently recommended expressway for the 1.4 miles westerly of Stanford Shopping Center. To the east, it turned southerly of Willow Road traversing developed residential areas along the common boundary between Palo Alto and Menlo Park. At the time of adoption the cities were not in agreement on the route location. Subsequently there was also opposition to full freeway development. As a result and in view of the fact that the adopted routing was very disruptive to housing (requiring 665 living units compared to a range of 268 to 428 on the expressway), the cities and counties petitioned the Highway Commission to reopen the routing matter. There was no public support whatsoever for the adopted routing at the 1970 public hearings discussing the new studies.

Other alternative alignments for an expressway were explored in an attempt to find a suitable one through the Willow corridor which would have less impact than the proposed line on the housing stock. None were found which would substantially reduce total number of living units required and at the same time not decrease the utility of the expressway nor markedly increase the impact on physical environment.

As the ecological impact of this expressway alignment is concentrated between Middlefield Road and El Camino Real, consideration was given to the possibility of going around the creek and park areas to the north in Menlo Park. However, that routing does not appear to be desirable because its impact would be even more severe upon the area. The expressway, because of high traffic volumes, cannot intersect at grade with El Camino Real. It must go over or under El Camino Real to eliminate an otherwise congested signalized intersection. For the expressway to be depressed north of the creek and then to cross it at Stanford Shopping Center would mean that the roadbed would intersect the creek at approximately a depth of 20 feet. The only means, then, for continuing the stream would be to use a massive siphon. For all practical purposes this would sever the stream. For the road to cross over the top of the railroad would mean structures rising a minimum of 30 feet over the rails. This has been deemed by the local community to be undesirable because of the visual impact and the increased noise levels.

At the public hearings and in correspondence, there were suggestions that the proposed expressway was not needed and that Willow Road could be widened from two to four lanes on its existing alignment. Some speakers recognized the desirability of an extension of Willow Road across the railroad and El Camino Real to eliminate the present discontinuity.

With regard to the above suggestions, conventional street widening west of Stanford Shopping Center appears to cause no serious problems, although it would not be as environmentally desirable as the proposed expressway which is generally depressed easterly of the westerly crossing of San Francisquito Creek. Any possible new alignment to eliminate the discontinuity between Stanford Shopping Center and Middlefield Road would be concerned with the same ecological and environmental aspects as the proposed expressway within these limits. However, it appears there would be as great, if not greater, residential disruption without the opportunities for the mitigating measures proposed on the expressway for development of a linear park. Widening of Willow Road from Middlefield Road easterly to Route 101 would place traffic closer to existing homes, causing greater noise and less safety because of lack of access control.

It is concluded that while widening existing Willow Road would accommodate current traffic, it would have no reserve capacity to handle the future traffic increases that are anticipated. As such, any widening could only be considered an interim measure essentially perpetuating existing problems. It would be of increasing impact to those living along Willow Road without the opportunities for mitigating measures such as noise attenuation, landscaping and access control.

VI. RELATIONSHIPS BETWEEN LOCAL SHORT-TERM ENVIRONMENTAL USES AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

In that the route passes through highly urbanized areas and the facility in and of itself will not directly cause further urbanization nor change or prolong man's current usage of the natural resources, there is seen to be no adverse change in maintenance and enhancement of a long-term productivity. The region's environmental future is not being predetermined by this particular facility. The future of the area is within the local community's control.

The need of a major east-west traffic facility in the study has been recognized by the communities as early as the 1930's. This need is becoming more apparent as traffic on local arterials is overflowing into neighborhood streets. The recognition is reflected in the endorsement of the project by the cities of Menlo Park and Palo Alto and the two counties. The highway facility is included in all regional land use and transportation plans.

The expressway will not only enhance the short-term uses but its companion features will certainly harmonize with the long-term productivity and objectives of the communities. The expressway will provide needed transportation service. It would further allow proper planning and development of

the area which might otherwise be strangled for the lack of a good transportation corridor. It should be noted that the expressway could provide a roadway for other modes of transportation such as mass bus transit in the future should the need arise.

The diversion of traffic to the expressway and consequently the relief to residential streets will make the neighborhoods bearing the traffic problems more viable. The more efficient characteristics of expressway will decrease the air and noise pollution from the macro-viewpoint. The replacement of the existing at-grade crossing of the Southern Pacific Railroad tracks at Palo Alto Avenue with the expressway underpass will eliminate a hazardous condition.

The joint jurisdictional proposal of the linear park concept in conjunction with San Francisquito Creek realignment tied together with hiking and bicycling trails will provide recreational enjoyment for present and future generations.

The U. S. Army Corps of Engineers has investigated the feasibility of improving San Francisquito Creek to prevent flooding, which has occurred. The Division of Highways will continue to coordinate with the Corps of Engineers and other flood control agencies on this problem.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

This facility is not viewed to substantially limit the range of beneficial uses of the environmental resources of the area. With local cooperation the natural resources of the area, such as San Francisquito Creek, may be more fully developed for public use and enjoyment.

VIII. COORDINATION

Numerous State, federal and local agencies were notified of the expressway proposal and invited to comment. The Department of Interior expressed interest in protection of El Palo Alto. The Department of Fish and Game requested that consideration be given to a possible run of steelhead in San Francisquito Creek. Measures to accommodate both these aspects have been discussed in previous sections.

By far the greatest expressed public concern was housing. Many persons felt that comparable housing for those displaced by the proposal cannot be found in the area and that replacement should be on a one-for-one basis to maintain the housing supply. Because of this concern, extensive studies were made on the availability of replacement housing, economic orientation of displacees and their neighborhoods and opportunities

for construction of new housing. These issues are discussed in considerable detail in the attached Report of Route Studies.

Other issues of concern were noise, air pollution, the effect upon parks, El Palo Alto and San Francisquito Creek. As discussed previously and in the Report of Route Studies, mitigating measures are proposed where possible to offset adverse effects. Construction of the expressway will enhance the opportunities for realization of a linear park along San Francisquito Creek.

The studies leading to the Willow Expressway proposal were a joint effort with the cities of Menlo Park and Palo Alto and Santa Clara and San Mateo Counties. Recognizing the need for a continuous east-west route, the local jurisdictions formed a committee to explore an expressway alignment as an alternate to the adopted freeway. The Committee, known as the Willow Road Committee, took the lead in evaluating alternatives with technical assistance provided by the Division of Highways.

Attach. (Report of Route Studies)

REPORT
OF
ROUTE STUDIES
RELATIVE TO
THE CONTROLLED ACCESS HIGHWAY LOCATION
OF
ROUTE 84
IN THE COUNTIES OF SAN MATEO AND SANTA CLARA
AND THE CITIES OF MENLO PARK AND PALO ALTO
BETWEEN
SANTA CRUZ AVENUE
AND
THE DUMBARTON BRIDGE

O4-SM,SC1-84

SM 23.2/23.4

SC1 23.4/25.8

SM 25.8/29.6

MAY 1971

San Francisco

PACIFIC



Base Map reproduced by the courtesy of the California State Automobile Association

Alameda

STUDY LIMITS

04-SM, SCI-84

SCALE IN MILES

0 1 2 3 4 5

MAY, 1971

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LIST OF ATTACHMENTS

Exhibit

- A. Map and Data
- B. Federal and State Agencies Notified of Public Hearings
- C. El Camino and T & M Hopkins Parks
- D. Linear Park Concept Vicinity of Alma Street
- E. Conceptual Linear Park Study
- F. Typical Semi-Depressed Expressway Section
- G. Alternate Expressway Sections East of Route 101
- H. Conceptual Landscaping (North Alignment)

PROPOSAL

Construction of a four-lane controlled access highway for the 6.4-mile portion of State Highway Route 84 between Santa Cruz Avenue and the Dumbarton Bridge is proposed.

BACKGROUND INFORMATION

Following hearings by both the Division of Highways (on June 29, 1961) and the Highway Commission (on November 17, 1961), the Commission on March 28, 1962 adopted a future freeway location for the 6.4-mile portion of Route 84 between Santa Cruz Avenue and the Dumbarton Bridge. The adopted routing is shown schematically on attached Exhibit A.

The adopted routing traverses areas under the jurisdiction of San Mateo County, Santa Clara County, and the cities of Menlo Park and Palo Alto. At the time of adoption, the cities were not in agreement on the route location. Subsequent to adoption, there also has been opposition to full freeway development. As a result, the cities and counties have been unwilling to sign any freeway agreements.

Recognizing the need for a facility which will provide continuity in the east-west direction along the Willow Road corridor between the Junipero Serra Freeway (Route 280) and the Dumbarton Bridge, Menlo Park and Palo Alto in 1967 formed the "Willow Road Committee" in an effort to develop an expressway-type facility which would be agreeable to both cities. The Committee consisted of two councilmen from each city and their staff members and a representative from Stanford University. In addition, staff representatives from the two counties attended meetings of the Committee.

At their request in early 1969, the Division provided technical assistance to the Committee. This primarily took the form of advising on problems on alternate alignments and concepts of development.

Following a number of meetings starting in April 1969, the Willow Road Committee at a meeting held on September 25, 1969, unanimously passed a motion recommending to their respective legislative bodies that Route E be selected as the desirable location for the proposed expressway and that immediate steps be taken to implement the necessary procedures so construction of the facility might proceed as quickly as possible.

Route E referred to above is one of four alignments investigated by the Willow Road Committee in the course of their meetings. As shown on Exhibit A, Route E is coincident with the adopted

routing westerly of Stanford Shopping Center. To the east, it follows the corridor of Willow Road, whereas the adopted routing is about 2,000 feet southerly, traversing residential development approximately along the common boundary between the two cities.

The Willow Road Committee's proposal was based on development of a landscaped four-lane divided expressway facility with sufficient median for possible future addition of two lanes. Access would be controlled and be limited to signalized intersections. Subsequent meetings resulted in some separated connections which were endorsed by the Committee. A minimum width right of way was proposed to reduce property tax impact. No cost information was developed.

The City Councils of Menlo Park and Palo Alto passed resolutions on October 7 and October 20, 1969, respectively, requesting the Highway Commission to reopen route location studies in order to consider the construction of a road along the line of Route E to expressway standards. Both counties also subsequently endorsed the expressway plan and requested the Highway Commission to reopen route studies.

At its November 20, 1969 meeting, the Highway Commission concurred in a special report dated November 4, 1969 recommending that the Division of Highways be authorized to undertake an investigation of the cost and feasibility of the alternate routing proposed by the Willow Road Committee.

A report to the Highway Commission dated August 4, 1970 concluded the E Line expressway was a feasible plan of development which could be adapted to ultimate conversion to full freeway when the need arises. The Commission formally authorized reopening of route studies at its meeting on August 20, 1970.

PRINCIPAL CITIES AND COMMUNITIES

Proposed Route 84 will pass through the cities of Palo Alto and Menlo Park as well as unincorporated portions of the counties of San Mateo and Santa Clara. Also affected are the communities of Belle Haven and East Palo Alto which are largely black neighborhoods, both located predominantly easterly of the Bayshore Freeway (Route 101). Belle Haven is part of the City of Menlo Park. East Palo Alto is in an unincorporated portion of San Mateo County. Stanford University property is also needed but the University has for many years reserved a corridor for the proposed route.

Populations of the affected communities are:

Menlo Park	29,800 (includes Belle Haven)
Palo Alto	56,000

Belle Haven	4,900
East Palo Alto	18,500

EXISTING HIGHWAY

A. General

The legislative description of Route 84 is from:

- a. Route 1 to Route 35.
- b. Route 35 to Route 238.
- c. Route 238 to Route 680 near Scotts Corners via the vicinity of Sunol.
- d. Route 680 near Scotts Corners to Route 580.
- e. Route 580 to Route 4 near Brentwood.
- f. Route 4 near Antioch to Route 880 near Bryte via the vicinity of Rio Vista and via Ryer Island.

The subject project is part of Section (b).

There is no existing through route between Interstate Route 280 and the Dumbarton Bridge. Route 84 is presently signed along Route 114 between Woodside and Redwood City which is a distance of $3\frac{1}{2}$ miles north of the Willow Road corridor. East of Route 101 to the Southern Pacific Railroad, existing Route 84 along Willow Road is a conventional undivided facility utilized for four lanes during peak periods and three lanes with parking on the north side during the off-peak. The posted speed limit is 35 mph. From the railroad to the Dumbarton Bridge, Route 84 exists as a conventional two-lane highway with a posted 40 mph speed limit.

Willow Road, west of the Bayshore Freeway, is presently under the jurisdiction of local agencies. It is the only east-west highway facility connecting existing Route 84 leading to the Dumbarton Bridge with Interstate Route 280. It is a two-lane arterial with high traffic volumes serving Stanford University and Hospital, Stanford Shopping Center, numerous administrative-professional buildings and large apartment complexes. However, Willow Road is discontinuous at El Camino Real (Route 82) for about one-half mile.

From the west, Willow Road terminates as a public road at Arboretum Road and becomes a semi-private road through Stanford Shopping Center to El Camino Real. Willow Road does not extend directly across El Camino Real and the Southern Pacific Railroad. Instead, a discontinuous out-of-direction movement along El Camino Real and Alma Street is necessary to reach the junction of Willow Road with Alma Street east of the railroad. From Middlefield Road to Route 101, Willow Road has two narrow lanes with portions having very poor alignment and sight distance. The posted speed limit is 25 mph.

B. Principal Deficiencies

As noted above, there is no continuous east-west highway facility in the high traffic density Willow Road corridor. There is much circuitry of travel and congestion on adjacent residential streets as well as on Willow Road. Existing traffic volumes already exceed warrants for four-lane development. There were 190 recorded accidents in 1969 on Willow Road and Palm Drive.

Local developments now under way or proposed along and adjacent to Willow Road will impose even greater traffic demands upon the corridor. An improved highway facility is needed to accommodate the growth taking place pursuant to local and regional general plans.

ROUTE PLANNING

The subject portion of Route 84 is part of the California Freeway and Expressway System. It is also on the Federal-Aid Primary System as FAP-66. It is not on the State Scenic Highway System.

Easterly of this project, the Division of Bay Toll Crossings is completing planning studies for a new four-lane replacement of the existing two-lane Dumbarton Bridge. East of the Dumbarton Bridge, a future freeway location was adopted by the Highway Commission on October 15, 1958 covering the 3.7-mile segment in Alameda County between 0.9 mile west of Decoto Road and Route 238.

Westerly of this project from Santa Cruz Avenue to Route 280, a future freeway location for this 1.7-mile segment of Route 84 was adopted on September 23, 1964 along San Hill Road. The Route 84/280 Interchange has been constructed. Local agencies have improved Sand Hill Road easterly to Santa Cruz Avenue to a four-lane divided arterial as an urban extension project.

Interstate Route 280 is expected to be completed between San Jose and San Francisco by 1975. Route 101 (Bayshore Freeway) is planned to be expanded to eight lanes in 1972. No improvement is planned for Route 82 (El Camino Real) from its present six lanes.

TRAFFIC

Existing Willow Road, east and west of Route 101, is presently carrying traffic volumes either at or over capacity, ranging from 11,500 to 25,000 vehicles daily. In addition, some neighborhood streets near Willow Road are congested by traffic seeking their own alternate east-west route.

Based on proposed local and regional general plan land uses, 1985 average daily traffic volumes are forecasted to be 30,000 vehicles at Dumbarton Bridge and increasing to 50,000 or 70,000 vehicles near the Stanford Shopping Center, depending on the extent of development. Trucks are estimated as 3 percent of traffic west of Route 101 and 7 percent east to the Dumbarton Bridge.

If the intensity of land use development continues to increase, it is anticipated that the average daily traffic in the corridor will correspondingly increase over that projected for 1985.

ACCIDENTS

City records of accidents show 104 accidents west of Route 101 along Willow Road and Palm Drive during 1969. Eighty-six accidents occurred east of Route 101. On a citywide basis there were about 750 accidents in Menlo Park and about 1550 accidents in Palo Alto in 1969. Development of Route 84 is expected to result in a large reduction in accidents on these as well as on other streets which are now being used because of the lack of this east-west route.

PROPOSED TYPICAL SECTION

Cost estimates (see Exhibit A) for the Route E expressway alternate are based on four lanes with sufficient median width for two additional lanes. A 49-foot median is proposed in developed area, varying to a 70-foot median near the salt marshes. A minimum right of way width of 170 feet and extensive use of retaining walls are proposed to reduce community impacts.

Cost estimates for the adopted freeway alignment are based on an initial four-lane full freeway with an ultimate eight-lane capacity within a minimum 194-foot right of way.

ALTERNATE ROUTES

A. Description of Alternates

As shown on Exhibit A and on the aerial photographs on the following pages, the adopted routing and the Route E expressway alternate coincide for the 1.4-mile length between Santa Cruz Avenue and Arboretum Road west of the Stanford Shopping Center. The route is located along Willow Road on the northerly edge of lands owned by Stanford University, crossing a small portion of the Stanford Golf Course before bridging San Francisquito Creek. The routing continues easterly along a new apartment complex utilizing open University lands.

Route E Expressway

This alternate is proposed as a 20-foot depressed section running northerly of Stanford Medical Center, southerly of Children's Hospital and northerly of Stanford Shopping Center. It continues fully depressed under El Camino Real and the Southern Pacific Railroad to near Middlefield Road where it proceeds to Route 101 depressed only five or six feet to allow signalized intersections with major city streets. Between El Camino Real and Route 101, Route E runs generally southerly of Willow Road traversing fully developed portions of the cities of Palo Alto and Menlo Park.

Near Alma Street, the route would pass through El Camino Park and an undedicated portion of park lands near El Palo Alto. El Palo Alto is a historic redwood tree near the site of an encampment of the Portola party's early expeditions into California. This site is State Registered Landmark No. 2. The route would cause the relocation of San Francisquito Creek east of this point.

Continuing easterly, the alignment would again cross San Francisquito Creek at Middlefield Road into Menlo Park. Near Gilbert Avenue, the alignment would pass through a small portion of Willow Oaks Park and a short distance easterly, it would require relocation of a portion of Willow Elementary School.

East of Route 101, in the East Palo Alto-Belle Haven area, two variations along Willow Road were studied. One follows the south side of Willow Road and encroaches into an industrial park. The other variation was based on a request by East Palo Alto and Belle Haven representatives that the alignment be positioned on the north side to take a row of deteriorating apartments. Adequate



Looking towards Bay from
Sand Hill Rd



**WILLOW
EXPRESSWAY**



Looking towards Bay from near
Stanford Shopping Center



**WILLOW
EXPRESSWAY**



*Looking towards Bay from near
Middlefield Rd & Willow Rd Intesection*



**WILLOW
EXPRESSWAY**

replacement housing for all the units taken was a conditional requirement for the north alternate. Because of ground water conditions, the Hetch-Hechy aqueduct, and engineering problems involved with providing signalized intersections with city streets, the expressway east of Route 101 is proposed as a ground level facility.

East of the railroad to the Dumbarton Bridge the expressway crosses marsh land and salt ponds adjacent to the existing Route 84.

Extensive use of retaining walls is proposed to minimize right of way requirements. In the segment from Middlefield Road to Route 101 where the route is semi-depressed five or six feet, it is proposed to construct walls or earth mounds or a combination thereof to provide a noise shield for adjacent residences. Noise shield walls will also be considered easterly of Route 101 through the Belle Haven-East Palo Alto communities.

Adopted Routing

Starting near Arboretum Road, the adopted line curves northeasterly at ground level between the Stanford Shopping Center and the Children's Hospital, then across the San Francisquito Creek into an expensive residential area in Manlo Park. Thence it dips fully depressed under Route 82 and Alma Street, then loops back and over the creek into Palo Alto. After crossing the creek, it continues fully depressed through a residential area until it again crosses over the creek just beyond Middlefield Road. It then runs fully depressed along the creek rising to cross over O'Keefe Street and the Bayshore Freeway.

Easterly of Route 101, the adopted routing traverses a developed residential area of East Palo Alto on an elevated profile, passing along the north edge of Kavanaugh Elementary School. The route continues elevated until crossing the Southern Pacific Railroad where it joins existing Route 84 near the Dumbarton Bridge.

B. Engineering and Economic Data

A summary of engineering and economic data is included on Exhibit A. The estimated cost of the E Line expressway ranges from \$44.2 to \$45.4 million depending upon whether the north or south variation easterly of Route 101 is used. The north variation is the more expensive in right of way cost and requires 160 additional living units.

The adopted freeway routing is estimated to cost \$68.3 million including \$26.3 for rights of way. It requires approximately 665 living units, including 455 single family residences.

Conversion of the E Line expressway to full freeway is possible at an additional cost of approximately \$30 million.

C. Maintenance and Operating Costs

The E Line is approximately equal in length to the adopted line and would be approximately the same in maintenance and operating costs.

D. Driver Benefits

Construction of a continuous route for east-west travel will increase driver comfort, speed and safety over that on existing streets. At the same time, there will be less noise and fewer vehicles on the neighborhood streets near Willow Road.

COORDINATION OF TRANSPORTATION PLANNING

A. Local and Regional Plans

Every general or transportation plan in the area indicates some type of continuous facility through the Willow Road corridor.

Palo Alto's Recommended Transportation Plan of 1969 depicts the studied Route E alignment.

Menlo Park's General Plan of 1965 shows realigned and extended Willow Road as a major arterial connecting with Willow Road in Palo Alto.

San Mateo County's General Plan of 1964 indicates the adopted freeway alignment whereas Santa Clara County's General Plan of 1962 shows a vague location for an expressway.

The Bay Area Transportation Study Commission's final report dated May 1969 recommended a freeway and transit network including a freeway in the subject corridor of Route 84. The map scale was too small to distinguish between the Adopted Routing and the E Line.

The ABAG Regional Plan 1970:1990 Report approved July 30, 1970 shows a limited access major collector-distributor highway west of Route 101 in the Willow Road corridor. To the east of Route 101, the ABAG plan indicates a regional limited access highway.

B. City Street and County Road Traffic

Both alternate plans will improve circulation patterns by the removal of through east-west traffic from local streets. While both will require some adjustments or closure of local streets, circulation to neighborhood areas will be reestablished. However, the adopted routing is considered more disruptive and creates more severance of existing local streets.

C. Total Projected Regional Transportation Requirements

The project is within the San Francisco-Oakland and San Jose urbanized areas. The urban transportation planning process has been coordinated with the following agencies:

1. Association of Bay Area Governments (ABAG)

ABAG is the areawide Federal-aid review agency designated under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966.

The Association's Regional Transportation Planning Committee (now superseded by the Metropolitan Transportation Commission) conducted a staff review of the new E Line and made the following comments in a transmittal dated December 16, 1970.

"From a regional standpoint, the proposed change in location from the adopted route is of little or no significance. However, the proposed downgrading of this project from a full freeway to an expressway will result in a facility inadequate to handle future traffic demands in this corridor. Our traffic projections indicate the need for a full freeway before 1990."

2. San Francisco Bay Conservation and Development Commission (BCDC)

The area east of the Southern Pacific Railroad (Dumbarton Branch) is within the area of BCDC jurisdiction.

BCDC's staff review comments, contained in a letter dated October 9, 1970 stated that, in general, the proposed location along existing Willow Road in this area is satisfactory subject to the following qualifications (in part):

- a. Any location should be subject to modifications required by the future high level Dumbarton Crossing.
- b. Every effort should be made to assure little or no encroachment on the salt ponds.
- c. Every effort should be made to assure minimal disruption to the area on the north side classified as "managed wetlands".
- d. Project should be coordinated with appropriate agencies to assure that the wildlife habitat and refuge potential are not necessarily disturbed.

3. Mass Transit

Although the General Plans of Menlo Park and Palo Alto propose rail rapid transit along the main line of the Southern Pacific Railroad, no implementing agency exists. No studies for bus or rail rapid transit are under way, although funds for a San Mateo County transit study were recently approved by the Board of Supervisors. An extension of the Bay Area Rapid Transit System is under study only as far south as the San Francisco International Airport.

The major transportation corridors through the project area run longitudinally (north and south) down the peninsula area and there are few east-west transverse connections. The major longitudinal transportation carriers are Route 101 (Bayshore Freeway), Interstate 280 (Junipero Serra Freeway), El Camino Real (Route 82), and the Southern Pacific Railroad.

The Southern Pacific Company runs commute trains at frequent intervals. There are stops in both Palo Alto and Menlo Park. The primary usage of the Southern Pacific commute trains is to and from the City of San Francisco.

Across the bay a similar situation exists in Alameda County where the major transportation carriers are State Routes 17, 238, Interstate Route 680, and the soon to be operational Bay Area Rapid Transit System. These routes are also longitudinal and run in a north-south direction.

In the immediate project area, there is only a minimal local bus system and local transportation is primarily by foot, bicycle or automobile.

At the present time, there does not appear to be sufficient user demand to justify a major mass transit system along the subject east-west corridor. However, this may change in the future. If the number of jobs which are projected for the area do come to fruition, a substantially larger portion of the work population will be commuting into the area to work. It does not appear that sufficient numbers of residential units can be generated to house all of the new employees. Because of a general lack of available land in the peninsula, the area with the greatest potential to fulfill the residential needs is in the Newark-Fremont area directly across the Bay. Residential growth has already begun in that area and an increasing number of persons are crossing the Dumbarton Bridge to work in the Palo Alto-Menlo Park area. This can be expected to increase substantially as new job opportunities become available in the project area. It is, therefore, expected that the expressway corridor may in time become a major commute route. If the volume of commute traffic increases to a sufficient level, the Route 84 project could serve as a mass transit system corridor. This could be accomplished through the use of buses.

4. Other Modes

No airports are directly served by Route 84. However, the project would interchange with the Bayshore Freeway which serves the major airports of the peninsula area.

D. National Defense

The closest military installation is Moffett Field Naval Air Station approximately seven miles south of Route 84, which is served by Route 101.

E. Use of Existing Highway and Transportation Facilities Before and After Construction

Portions of existing Route 84 east of Route 101 and portions of Willow Road west of Stanford Shopping Center will be incorporated into the Route E expressway alternate. Between El Camino Real and Route 101 and from about Santa Cruz Avenue to Pasture Drive, existing Willow Road will generally remain to serve neighborhood traffic. The remaining east-west streets, not directly affected by the expressway, will have greatly reduced traffic volumes.

The adopted freeway alternate utilizes only the east and west ends of existing Willow Road. Between El Camino Real and east of the railroad, the existing road would remain for local service.

ACTION TAKEN SUBSEQUENT TO APPROVAL TO STUDY FEASIBILITY

A. Conferences and/or Meetings

Nine public meetings with local governing bodies were held between January 1970 and July 1970. Three map displays were held prior to the two public hearings.

Many meetings were held with local staff and planning personnel, housing advisory boards, school representatives and home owners. Information on the progress of the project was well covered by the local newspapers.

B. Notification of Local Governing Bodies

September 16, 1970 - The City Councils of Menlo Park and Palo Alto and the Boards of Supervisors for San Mateo and Santa Clara counties were invited to the October 22, 1970 public hearing. They were notified of the provisions of Section 75.5, 76.6 and 210.4 of the Streets and Highways Code.

November 25, 1970 - The City Councils of Menlo Park and Palo Alto and the Boards of Supervisors for San Mateo and Santa Clara counties were invited to the December 10, 1970 hearing continuation.

No information with regard to Section 75.5 was presented by any local agency.

C. Notification of State and Federal Agencies

The State and Federal agencies listed on Exhibit B were notified of the intention to study the feasibility of a new alignment for the limits of the proposal. They were also later notified as to the date and location of all the map displays and the two public hearings.

D. Public Hearings

Resume of First Public Hearing

A well publicized public hearing was held on October 22, 1970 in the Palo Alto Community Theatre in Palo Alto. The hearing was called to order at 2 p.m. by Deputy District Engineer C. F. Greene and recessed at 6 p.m. Approximately 450 persons were in attendance.

Councilman Frank Gallagher, Vice Mayor of Palo Alto, presented a letter from the Mayor officially endorsing the "E" Line as recommended by the Willow Road Committee, if designed to the highest standards. (Pages 32-36 of Hearing Transcript)

City Manager of Menlo Park, Mr. Mike Bedwell, presented the City's official endorsement of the "E" Line expressway as a means to resolve the discontinuous traffic problem. (Pages 36-38)

Mrs. Janet Owens speaking for Mid-Peninsula Citizens for Fair Housing expressed concern for the adverse effect on housing which the project would cause and suggested measures to lessen the impact on housing in this severe housing shortage area. (Pages 38-43)

Mr. John Beckett of the Palo Alto Chamber of Commerce stated that their organization supports the expressway proposal because it would remove through traffic from residential streets. (Pages 44-46)

Mrs. Dorothy Reed of the League of Women Voters urged that replacement housing for people displaced by the project be given top priority. (Pages 46-48)

Mr. Boyd C. Smith speaking on behalf of Stanford University officially endorsed the new route and expressed concern that all displacees be satisfactorily relocated. (Pages 49-51)

Mr. Peter Standwich representing Ecology Action of the Mid-Peninsula opposed the entire project on social and ecological grounds and urged a reevaluation of regional needs. (Pages 51-53)

Mr. Irving Layton, Manager of the Menlo Park Chamber of Commerce, read the Chamber's letter endorsing the "E" Line. (Pages 53-55)

Mr. Richard Gaines of the National Air Conservation Commission discussed studies of carbon monoxide concentrations and opposed additional highway development in urban areas if alternate modes of transportation can be found. (Pages 56-69)

Mr. Steven Sowards of the Stanford Conservation Group stated that the group opposed the expressway in any form because it will destroy some of San Francisquito Creek area, have an adverse effect on housing, and tend to open up unspoiled foothill areas to undesirable commercial and industrial development. (Pages 59-61)

Mr. Donald Willis of the Northwest Neighborhood Council of Palo Alto Tenants Union presented a statement that the road is not needed and will have many adverse effects on the community. (Pages 62-63)

Mr. Willard Walker of the Senior Coordinating Council expressed opposition unless adequate replacement housing for the elderly is constructed. (Pages 64-67)

Mrs. Ida Morris of the Willow Road Neighborhood Group opposed the project because of adverse effects and development it would bring to the area. (Pages 74-82)

Mr. L. R. Goldsmith of the Palo Alto Housing Corporation expressed reasons for apprehension about federally funded replacement housing. He felt only State-financed housing will supply the needed units. (Pages 84-87)

A spokesman for the Palo Alto Tenants Union opposed the expressway and advocated a moratorium on development. (Pages 88-96)

Mrs. Sarah H. Johnson representing the Midpeninsula Community House opposed the project as improper development and supported rapid transit. (Pages 97-99)

Mr. John Hargis representing the Oppose Willow Expressway Petition Group opposed the expressway and questioned whether the City of Palo Alto had the right to trade park land without a vote of the people. (Pages 99-102)

Miss Eleanore Wilkins of the Sierra Club asked for further studies to determine how much development the community can tolerate before proceeding with highway construction. (Pages 102-105)

Mr. Peter Sly of Legal Aid Society of San Mateo discussed replacement housing needs and the Ralph Act. He suggested that all units must be replaced by the Division of Highways. (Pages 105-112)

Twelve individuals spoke. Five were opposed, while two favored construction of the project. Five others questioned the effect on housing, pollution and the people displaced.

In addition to those who spoke at the hearing, 25 cards containing comments were received. As expressed on the cards, five were opposed, while one favored the project. Nineteen others questioned the effect it may have on the communities.

A summary of correspondence received after the public hearing lists 24 letters in favor of the expressway and 10 against construction. Five letters expressed concern for the Palo Alto Redwood Tree.

Resume of Second Session of the Public Hearing

The well publicized continuation of the public hearing was held on December 10, 1970 at the Menlo Park Community Center Gymnasium in Menlo Park. Approximately 300 persons were in attendance. Supervisor Joseph Bort of Alameda County served as presiding officer.

San Mateo County Engineer, Mr. Sid Cantwell, stated the County and the East Palo Alto Municipal Council endorse the "E" Line expressway subject to the furnishing of suitable replacement housing (Hearing Transcript pages 67-71).

Administrator James McCracken of the Stanford Children's Hospital officially endorsed the "E" Line expressway. (Pages 72-73)

Mr. Charles Bigelow of the Committee for Green Foothills asked questions concerning the need for the project and the use of new techniques for traffic projections utilizing alternative modes of transportation. (Pages 73-77)

Mr. Sidney Williams, consultant to the City of Menlo Park, discussed their study of steps needed to minimize the impact of the expressway. Parks, landscaping, bicycle paths and revised land uses were suggested. (Pages 78-80)

President Duncan Madison of the Sharon Heights Association stated they strongly favored Route "E". (Pages 80-83)

Mr. Paul Herstein of the North Side Action Group raised the question of minor improvements to serve present traffic or bus transit as an alternate. He suggested stopping the developments which would bring higher traffic volumes. (Pages 83-86)

Mr. Frank Tims, President of the Palo Alto Chamber of Commerce, officially endorsed the "E" Route and urges construction be undertaken at the earliest possible time. (Pages 86-87)

Mr. Ralph Hansen, President of the Palo Alto Historical Association, expressed concern for the life of the Palo Alto Redwood Tree as it may be affected by the proposal. (Pages 87-89)

Mr. John Roger of the Palo Alto Tenants Union deplored concern for the tree when people are being displaced. He advocated that the expressway be stopped. (Pages 91-92)

Mrs. Joyce Reece of the League of Women Voters, South San Mateo County, advocated that adequate housing be provided before demolition begins. (Page 94)

Mr. Larry Blackwood representing the Environmental Law Society raised questions on the Environmental Impact Report required by Federal law. (Pages 94-102)

Mr. John Blueford of the Belle Haven Advisory Board officially endorsed the project. (Pages 123-124)

Mr. Don Siekens representing the Ecology Action of Palo Alto opposed the project until other modes have been thoroughly studied. (Pages 137-138)

Twenty-five individuals spoke at the hearing. One supported it while 17 opposed it. Seven expressed concern for the Palo Alto Tree or for replacement housing and people displaced. Several persons also suggested widening of existing Willow Road.

In addition to those who spoke at the hearing, 66 cards with comments were received. While 23 cards were in favor of the project, 24 were against. Thirty-seven raise various questions.

Subsequent to the hearing, six letters were received in favor of the project, 16 were against and five expressed various concerns.

Copies of the transcripts and records of the public hearings were forwarded to the attention of the members of the Highway Commission under date of May 26, 1971.

SOCIAL AND ECONOMIC COMMUNITY VALUES

The major emphasis in the following sections is on the Route E expressway plan. Because this plan was suggested and supported by all local governing bodies, a very thorough analysis was made of its social, economic and environmental aspects. Pertinent aspects of the adopted routing are highlighted only for comparison purposes.

A. Schools and Education

Kavanaugh School

The adopted line is on a fill section adjacent to the Kavanaugh School. No school property is required. The nearest classroom is about 130 feet from the nearest freeway lane. Recent legislation allows measures to be taken which will keep noise levels in the school building within reasonable limits.

Willow Elementary School

The proposed Route E expressway would necessitate the relocation of one wing of Willow Elementary School and a small building which houses the Ravenswood School District's computer center. The Willow Elementary School has a joint campus with Menlo Oaks Junior High School. The proposed relocation of part of the elementary school was discussed with the school district's staff and board of trustees. The elementary school appears to have sufficient land at this site upon which to relocate and the school staff has found no objection to this plan. The wing that would be relocated is the oldest portion of the school and is approaching functional obsolescence.

Current access to the elementary school is via Willow Road and Pope Street. As the school parking lot connects Willow Road to Pope Street, a number of people utilize the parking lot as though it were a city street. The first plans drawn by the Division of Highways contained a frontage road which would continue access to the school from Willow Road. At the suggestion of the school officials, this plan was dropped because they felt closing off this point of access would provide them with better control of the school children's comings and goings.

In the after condition, access to the school would probably be limited to Pope Street, which is a low-volume residential street. This is considered better than the currently existing conditions where the school children who walk to the school do so along heavily traveled Willow Road. A majority of the students at Willow School come in from the East Palo Alto-Belle Haven area via bus. Some minor amount of curb and driveway work will be necessary off Pope Street to allow adequate turning radii for these buses. A second point of access could be developed off Beacon Street. There currently exists a vacant lot adjoining the school property which fronts onto this street.

One of the normal concerns of any school district is noise. The noise impact studies indicate that this factor can be adequately handled. In the anticipated after condition, the nearest classroom would be a minimum of 125 feet from the closest traveled lane of the expressway. Furthermore, the expressway will be depressed five to six feet in this area and there will be an earthen or masonry noise suppressing mound alongside the facility. In accordance with Section 216 of the Streets and Highways Code, the State can guarantee that the interior classroom noise level will be reduced to its current level or 50 dBA, whichever is greater

B. Federal, State and Local Public Facilities

Children's Hospital at Stanford

Children's Hospital is located at Arboretum Road and fronts on existing Willow Road. The Route E expressway would be depressed approximately 20 feet below the ground level. Noise and visual impact is expected to be minimal. This hospital was identified as being one which would be sensitive to air pollution because the hospital's principal client is the asthmatic child. For this reason, it was given specific attention and discussions were held with the Administrator on the location, design, and environmental effects of the expressway. It was found that there appears to be no adverse effects upon the hospital. The hospital's board of directors and staff concur in these findings and endorse the project as proposed.

The Adopted Routing could not be depressed at Arboretum Road as it must cross over San Francisquito Creek a short distance easterly.

Menlo Park Veterans' Hospital

The Veterans' Hospital fronts on existing Willow Road near the Bayshore Freeway. In this vicinity, the Route E expressway would be partially depressed about six feet, except where it conforms to the interchange at Bayshore Freeway. The roadway is approximately 100 feet clear of the hospital's nearest boundaries. Furthermore, low noise suppression mounds and heavy landscaping would be incorporated into the right of way. This would further reduce the noise and the visual aspects to an acceptable level.

C. Religious Institutions and Practices

The E Line expressway plan is not known to conflict with churches or to have a significant impact upon the source of church membership.

D. Natural and Historical Landmarks

Located on the south bank of San Francisquito Creek at Alma Street is a tall, 1,100 year old redwood tree. The tree itself, called El Palo Also, and the surrounding land are of historical significance in that this is one of Portola's campsites used in his discovery and exploration of San Francisco Bay (1769). In his later diary, Portola writes of approaching the Creek using for a landmark a tall redwood tree that looked like a watchtower. This tall tree was such an outstanding landmark, towering over the oak-studded plain that existed in the area at that time, that it was used again by the later Portola expeditions and the expeditions of Father Junipero Serra.

The site of the tree and creek was marked by the early Portola expeditions for a mission, but Father Serra moved the site of the mission to what is now the City of Santa Clara when he found that San Francisquito Creek dried up during the summer.

When the Bay area was later settled in the early 1800's, the tree became one of the corners for a number of Spanish and Mexican land grants and appears on all the early mappings of the area from the 1790's onward. The tree marks one boundary of the rancho purchased by Leland Stanford and which is now Stanford University. The tree was originally double-trunked, but one of them fell during a storm in the late 1800's and it is now a single tree. Portola's campsite on the northern bank of San Francisquito Creek and the tree itself are State Historical Monument No. 2.



EL PALO ALTO

El Palo Alto is the namesake of the City of Palo Alto, and it is the town symbol. It appears in the official city seal and the tree is the predominate feature in the Seal of Stanford University and is most likely the tree pictured in the San Mateo County Seal. Needless to say, the local citizens attach a great deal of sentiment to El Palo Alto and have expressed the desire to preserve it at all cost.

El Palo Alto is bounded on one side by the Southern Pacific main line peninsula route and on two others by San Francisquito Creek. Therefore, its root system can only extend to the south. For the past 50 years, El Palo Alto has had a tenuous grasp on life. To preserve the tree, about 30 years ago a sprinkler system was installed on it to periodically wash down the foliage.

The expressway would pass to the south of the tree and be depressed a minimum of 20 feet below the ground level to clear El Camino Real and the railroad tracks. Because of the possible conflict with the root system of El Palo Alto, the Division hired a dendrologist to assess the effects of the expressway. The City of Palo Alto also obtained reports from two other experts in the field. The final consensus was that, if the expressway can be kept 100 feet from the base of the tree, it will not have a harmful effect upon it. Furthermore, it was recommended that the smaller redwoods which were planted near the tree to provide a supporting environment for it be left in place to the greatest extent possible. These considerations were taken into account in the design of the expressway and can be met. Water and electrical power will be continued to the site to allow maintenance of the tree.

The land occupied by the tree itself is leased from the Southern Pacific Railroad. The park area immediately to the southeast (known as T & M Hopkins Park) containing the young redwood trees belongs to the City of Palo Alto.

The Adopted Routing passes about 200 feet north of El Palo Alto on the opposite side of San Francisquito Creek and appears to avoid any adverse effects on the trees.

E. Recreational Resources

Located between El Camino Real and Middlefield Road there are a series of parks or park-like areas and a site of historical significance. These all link together to form a pleasing setting for the adjacent residential areas and there is little or no distinction to be made as to where one park leaves off and another begins (see Exhibit C).

a. El Camino Park

El Camino Park is a formally dedicated park and it is located between El Camino Real and the Southern Pacific tracks paralleling Alma Street. The land belongs to Stanford University and is leased to the City of Palo Alto. The park is approximately 11 acres in size and is developed with a baseball diamond (semi-pro), a soccer field, rest room facilities, and a Veterans Administration building on the southerly 10 acres of the park. The northerly 1 acre is a partially landscaped area which is bisected diagonally by a high traffic volume connection of El Camino Real and Alma Street. It is this northerly 1 acre area which would be affected by the Route E expressway. The expressway would require about 1/2 acre of land from the park.

The Adopted Routing does not affect El Camino Park.

b. T & M Hopkins Park (undedicated)

As noted earlier, the young redwood trees to the south-east of El Palo Alto are on a 1.1 acre parcel known as Hopkins Park (not officially named). It also encompasses a portion of San Francisquito Creek.

As the land was given to the City of Palo Alto for park purposes under a grant containing a reversionary clause, there was some concern on the part of the citizens as to the effect of the State's taking a 1.0 acre portion of this land for the expressway. The question was raised as to whether or not it would be necessary to hold a referendum of the people of Palo Alto, as specified by the City Charter, before the park lands could be acquired by the State. The City Attorney rendered an opinion that such a referendum would not be necessary for the State's acquisition. However, he informed the city that it has the right to file for declaratory relief to determine which is in the greatest public interest -- a park or a park and expressway. The Palo Alto City Council on November 16, 1970 instructed the City Attorney not to file for declaratory relief.

c. San Francisquito Creek

San Francisquite Creek is a natural water course running from Searsville Lake to San Francisco Bay. Through the area of the proposed project, the creek has cut a channel approximately 20 feet deep with near vertical walls. The water flow is seasonal and during the later summer months, the only water in the

creek is found in a few scattered ponds fed by street runoff from storm drains. For the most part, the banks are heavily vegetated with a mixture of native (including poison oak) and exotic plants. Due to the creek's steep sides and soil erosion, there have been cases of trees sloughing off into the creek and causing flooding conditions.



View of San Francisquito Creek Near
Stanford Golf Course

The nonaquatic vertebrate wildlife of the creek appears to be limited to small animals such as squirrels, mice, and other rodents and small birds. The aquatic wildlife appears to be limited to indigenous mosquito fish, squawfish, and frogs and occasionally some heartier semi-tropical fish apparently introduced from local aquariums.

While the City of Palo Alto has developed certain portions of the creek in a park-like manner, the current recreational value of San Francisquito Creek is greater in its potential than in its actual use. For the

most part, development has turned its back on the creek. With some notable exceptions, adjacent property owners find the creek more useful as a place to dump their garden clippings than as a scenic and recreational resource.



San Francisquito Creek in Back of
Oak Creek Apartments

The creek is a boundary between Santa Clara and San Mateo counties. It is also the boundary between the City of Menlo Park and the City of Palo Alto. Ownership of the creek is both public and private. As a general rule, where there is a public street adjacent and parallel to the creek the public ownership extends to the center of the creek channel. All other areas are in private ownership. The major section of public ownership of San Francisquito Creek in the project area is the south side of the creek between Alma Street and Middlefield Road in Palo Alto. Where the distance between Palo Alto Avenue and the top of the creek bank is sufficient, the city has developed the area in a park-like manner.

San Francisquito Creek would be directly affected by the Route E expressway proposal at four locations. The first would be at a crossing east of Santa Cruz Avenue near the location where existing Willow Road now crosses it. The crossing would be at ground level and would be made on a bridge structure. The new bridge structure would be similar to the existing one and, therefore, should have a minimal impact upon the creek.

A similar structure would be provided near Lexington Drive to provide continued city street access from the northern portion of the Menalto neighborhood to Middlefield Road. This crossing should likewise have a minimal impact on the creek.

The two other points of contact with San Francisquito Creek would be at Alma Street and at Middlefield Road. Easterly of Alma, 1000 feet of creek channel would be realigned to allow the expressway to be depressed 20 feet to cross under Alma Street, the Southern Pacific main line tracks, and El Camino Real. At Middlefield Road, approximately 700 feet of winding creek channel would be bypassed by a conduit to allow for a depressed intersection of Middle field Road and the expressway.

The adopted route involves four crossings and one re-location of San Francisquito Creek for a distance of approximately 600 feet. However, it would not create the opportunity of a linear park development associated with the expressway plan.

d. Mitigation Measures (Route E)

One the Route E expressway alternate, it is proposed to reestablish the size and utility of El Camino Park, the lands surrounding El Palo Alto and the park-like areas along the southerly banks of San Francisquito Creek and the relocated creek channel into a new park area. This new park area would be located on a substantial amount of land the State would be acquiring for this route between the current creek channel and East Creek Drive. The park would contain about the same area as the lands required from El Camino Park, the area surrounding the tree and the current public ownership of San Francisquito Creek.

This park plan was jointly devised by the State and the technical staff of the cities of Menlo Park and Palo Alto. The park could be a series of rock-walled terraces planted with grasses and shade trees on the

north side of the creek and back into native shrubbery on the south side. (See Exhibits D and E.) The parks would be tied together by a series of hiking and bicycling trails with bridges and fords. The cities are currently considering the possibility of extending the trail system which would be started in this area from Searsville Lake to the Bay Lands Nature Preserve on San Francisco Bay. Therefore, this linear park concept could be expanded to cover far more than just a portion affected by the highway.

In Stanford's Land Use Policy Plan recently submitted to the Board of Trustees, the planning consultants recommend that all the creek areas on Stanford property be kept clear of development and possibly incorporate bicycling and hiking trails. As consideration is being given to incorporating Searsville Lake and the upper reaches of San Francisquito Creek into the Jasper Ridge Biological Preserve, it is possible that not all of San Francisquito Creek will be available for the extension of the linear park concept. Biological preserve usage of necessity dictates the exclusion of public access; however, the trail system could be extended up Los Trancos Creek and could alternately connect with Felt Lake.

Consideration is also being given by the State and the City of Menlo Park to continuing the hiking and bicycling trails along the expressway right of way where it leaves San Francisquito Creek at Middlefield Road. This extension of the hiking and bicycling trails would extend through Belle Haven and East Palo Alto to the Bay lands to the east of the Southern Pacific Railroad's Dumbarton Branch line. The major portion of the trail could be located on excess lands acquired by the State for this route or within the nonoperating right of way areas. There are, however, several small breaks in the land continuity and the City of Menlo Park is exploring the possibility of acquiring enough land to connect up these breaks.

Because of the possibility of a very small annual Steelhead migration in San Francisquito Creek, consideration is being given to a drainage groove in the bottom of the box section at Middlefield Road. This would allow low water level passage of the young fingerlings back to the Bay. The natural flyway that the creek provides for small birds would be disrupted by the box section. The distance that the ground vegetation would be disrupted would be a total of 275 feet compared with the 80-foot disruption now caused by the existing bridge crossing of Middlefield Road.

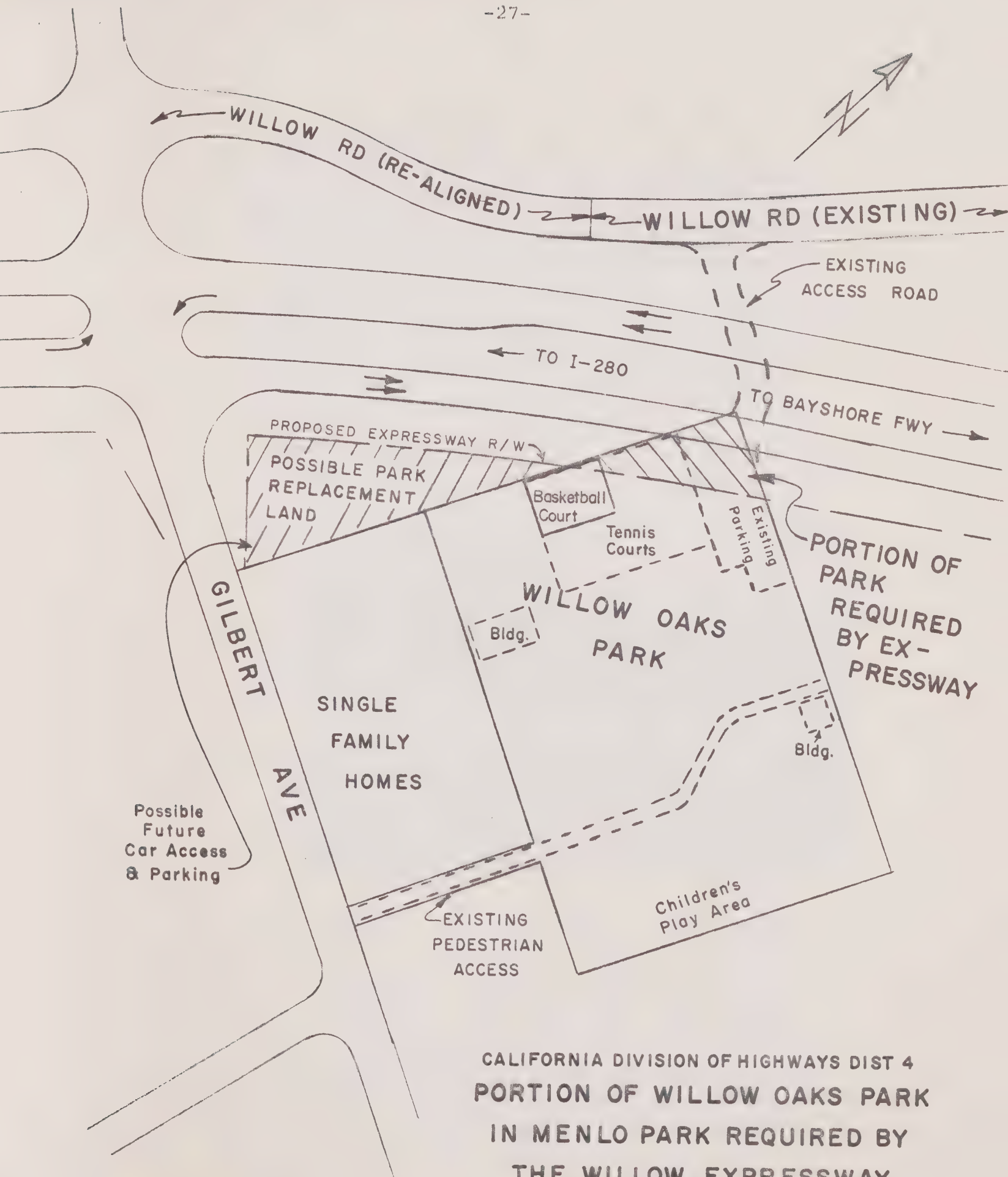
The design efforts on the creek area will be coordinated with the responsible flood control agencies so that the actual creek channel will have sufficient flood water capacity. This would eliminate the possibility that the park, which would be developed in conjunction with the expressway, would have to be disrupted at some future date by flood control improvements.

e. Willow Oaks Park

The Route E expressway would also require a portion of Willow Oaks Park located near Gilbert Avenue and Willow Road in Menlo Park. This park is developed with tennis and basketball courts, a children's play area, and a small recreation building. It is about three acres in size and the City of Menlo Park estimates that it had 18,400 user visits last year. The park plan is shown on the following page.



Willow Oaks Park



CALIFORNIA DIVISION OF HIGHWAYS DIST 4
PORTION OF WILLOW OAKS PARK
IN MENLO PARK REQUIRED BY
THE WILLOW EXPRESSWAY

04-SM, SCL-84 04106-210700

DRAWN BY SBH

The expressway would require about 1/10 acre of the park which would terminate the current vehicular access from Willow Road and cause the relocation of at least one of the tennis courts and the parking lot. Preliminary plans indicate that by replacing approximately 3/10 of an acre of land on the west side of the park fronting on Gilbert Avenue, full usage of the park can be continued.

A possible arrangement of the reestablished park is shown on the park plan. The expressway would be five to six feet depressed at this point and the park would be screened from it by heavy landscaping and a noise barrier. This park, too, could be connected to the series of hiking and bicycling paths. Discussion of this proposal with the City of Menlo Park staff revealed no serious problems.

f. Bay Lands

Between the Southern Pacific Dumbarton Branch Railroad line and the Dumbarton Bridge head lies an area of partially developed Bay lands. In this area, there is some fill for industrial development, Ravenswood Slough, which has been diked and terminated at existing Willow Road, salt evaporation ponds, a major P.G.&E. substation, and an area of managed wet lands used as a duck club. The area to the north of existing Willow Road is proposed for inclusion in a national wildlife refuge.

Both the Adopted Routing and the Route E expressway would follow the existing alignment of Willow Road and would have to be widened from its existing width. It is anticipated that any such widening would be to the south, thus not conflicting with the proposed wildlife refuge, the semi-natural state of Ravenswood Slough, or the managed wet lands.

The technical staff of the Bay Conservation and Development Commission has stated that it is the Commission's policy to maintain as much open water area as possible. If the widening for the expressway is placed entirely on fill, there would be some diminution in the open water area, mainly from a single saltwater evaporation pond. The Division's studies have shown that there would be a cost differential of \$6.7 million between utilizing a fill section and placing the expressway on structures so as not to require any of the currently submerged areas.

g. Stanford Golf Course

Near Santa Cruz Avenue and existing Willow Road, both the Adopted Routing and the Route E expressway would require a small portion of Stanford Golf Course. See map on next page. There are approximately 60,000 rounds of golf played on this course per year. Discussions were held with the Stanford University Athletic Department and there was a general concensus by the University staff that the golf course could be modified to accommodate the State's requirements. This modification would call for the relocation of one entire hole and the tee for another.



View of the Green and Fairway that Would Be
Relocated by Expressway

The proposed Stanford University Land Use Policy/Plan recommends that the entire golf course be relocated by the University so that the 190 acres that it now occupies could be devoted to future campus expansion; therefore, there exists a strong possibility that the project may not affect the golf course at all.

F. Economic Activity

Between San Francisco and San Jose in San Mateo and Santa Clara counties is the mid-peninsula area. The mid-peninsula, a highly urbanized area, contains a multitude of separate political jurisdictions, geographically joined together with no visible separation except for city limit signs. Typically, land use planning is on a local basis, and each jurisdiction's General Plan tries to direct future growth to provide an optimum working and living environment for its residents. The jurisdiction(s) offering the greatest potential for economic development; i.e., availability of developable land, a desirable labor pool, a mix of facilities for the transport of goods, an academic environment for scientific and research oriented endeavors, and a residential pattern to accommodate a broad range of individual and family needs, tends to attract investment capital for economic growth. To a degree, the above-mentioned factors are operative in the mid-peninsula area and will bear heavily on the future developmental potential of the communities through which the Willow Expressway is proposed.

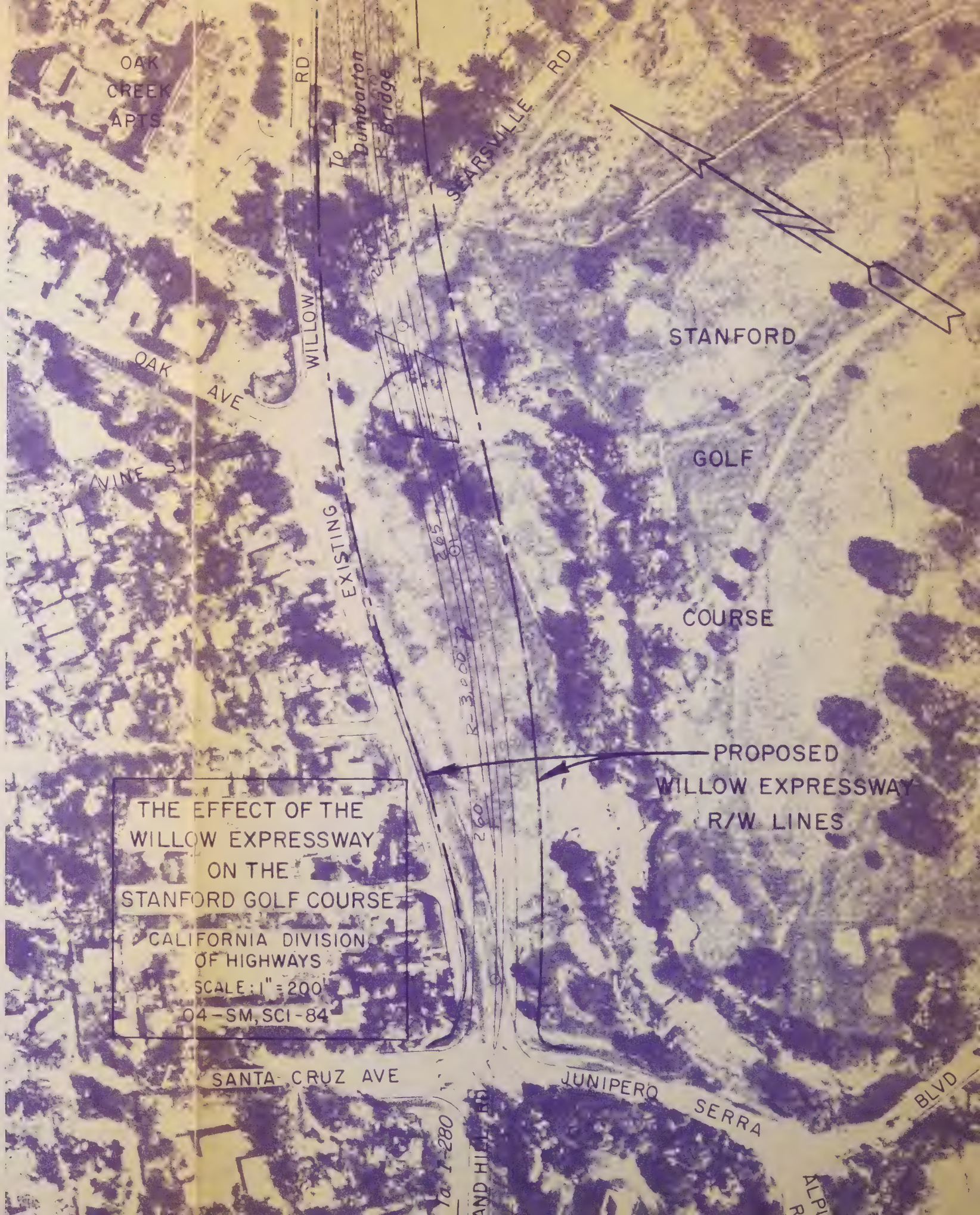
Economic development will principally center around the major industrial groups consisting of manufacturing, research and development, and service industries. Much of the development will be of facilities of already established firms bolstered by the strong advantages offered to new firms to locate in the area.

It appears that the major expansion of commercial, industrial and institutional growth in the study area will occur in the City of Palo Alto and Stanford University properties due to the availability of developable land and the growth aspirations of the controlling governing bodies. The City of Menlo Park, because of almost saturated development, is limited in the amount of new development it can accommodate in the future.

G. Employment Activity and Displacement of Businesses

a. General

Stanford University has a great potential to increase economic development and job opportunities by maximizing the utilization of its lands. A report, Stanford University Land Use Policy/Plan, 1971, has been prepared for Stanford University by Livingston and Blayney, City and Regional Planners on the use of the University's undeveloped lands. The Plan has been submitted to the University's Board of Trustees for review and consideration. The Plan depicts the



OAK
CREEK
APTS.

RD

Dumbarton
Bridge

SEARSVILLE RD

STANFORD

GOLF

COURSE

PROPOSED
WILLOW EXPRESSWAY
R/W LINES

THE EFFECT OF THE
WILLOW EXPRESSWAY
ON THE
STANFORD GOLF COURSE

CALIFORNIA DIVISION
OF HIGHWAYS

SCALE: 1" = 200'

04-SM, SCI-84

SANTA CRUZ AVE

JUNIPERO
SERRA

BLVD

Yd 1-280

AND HILL RD

ALPINE RD

current land use and current land status of the University's 8,800 acres, 4,500 of which are uncommitted at present. The future utilization of the 4,500 acres is the essence of the report. Of this acreage, 1,233 acres constitute seven possible land development sites that may be developed for non-academic purposes within 18-25 years. The remaining uncommitted lands will be reserved for future academic uses and open space.

Stanford has the capacity to increase the job inventory in the study area by:

1. Enlarging the University campus.
2. Extending the medical and research programs.
3. Increasing the capacity of the Stanford Shopping Center.
4. Promoting the development of the remaining Stanford lands as circumstances and time dictates.

The Stanford Medical Center plans to expand its present 630 beds to 800-1,000 beds in the next 10 to 15 years. Although there is no officially adopted policy concerning maximum enrollment growth beyond the current 11,600, it is assumed that Stanford University has the capacity to increase enrollment to 15,000. Also, Stanford's Office of Land Management has a number of development proposals in the planning and discussion stages. These proposals include an office development on the former Mayfield School site and adjacent property located on El Camino Real near Page Mill Road, a hotel project in the vicinity of Sand Hill Road and the Junipero Serra Freeway, and a professional office complex on a vacant site between Children's Hospital and the Oak Creek Apartments along Willow Road.

Future population increases in the study area will depend heavily upon Stanford's use of its land and the type of business enterprises that may be attracted to the area. Stanford, based on its Policy/Plan employment projection, can contribute new employment ranging from a minimum of approximately 7,700 to a maximum of approximately 14,000.

Palo Alto also has the potential to increase job opportunities by continuing to supplant retail commercial business located in its Central Business District with a mix of service oriented business and

professional-financial office buildings. The importance of the Central Business District for traditional retail commercial activities has been lessened by the proximity of the Stanford Shopping Center which offers more variety in customer goods and services and reduces the parking problem associated with downtown parking.

In general, major land use categories have a fairly constant employment related coefficient; i.e., available square footage is a means of determining the number of employees for the use which any particular building or portion of a building is put. Office uses -- real estate, finance, insurance, and other business services, such as those locating in Palo Alto's Central Business District, will provide jobs for a greater number of employees than those lost from the general merchandise-retail and miscellaneous retail businesses. This will occur, principally, because the office buildings will be of a high-rise nature and will in the aggregate provide considerably more space than will be lost as the retail business uses are phased out. This, coupled with a lesser floor space per employee required in office building uses than in retail business uses, will generate a greater number of jobs.

Palo Alto's favorable proximity to the research development and educational facilities at Stanford University makes it attractive for research oriented businesses, manufacturing and medical facilities to locate in the area. The Palo Alto General Plan, 1963 assumes that "if industrial employment throughout the city averages 50 persons per acre, the 1,230 acres zoned for industry would provide space for employment of 60,000 persons". It is estimated that by the year 1990, the city will provide in excess of three jobs for every employable resident. Job opportunities will lure workers from other areas to Palo Alto, which will result in significant rise in the city's resident population and will increase the amount of commuter traffic generated by workers residing outside the area.

The City of Menlo Park will also share in the potential to increase job opportunities in the study area, however, on somewhat lesser scale than Stanford and Palo Alto, because of a limited amount of developable land. Its proximity to the research-development and higher educational programs being conducted in the Stanford environment also makes it attractive for new economic growth.

The General Plan, 1990, Menlo Park proposes no physical expansion of the downtown area, but recommends more intensive and efficient use of downtown properties. The Plan calls for replacement of the older, single-story structures with multi-story buildings. Major expansion of office-type use is recommended along Sand Hill Road and adjacent to the Stanford Linear Accelerator site. Expansion of light industrial is limited to land bordering the existing areas east of the Bayshore Freeway.

Future economic and employment expansion within the study area is inevitable. This growth can occur in the following manner:

1. More intense development of Stanford University properties.
2. Land use changes from existing to higher and more intense uses.
3. Optimum development of industrial acreage.
4. Restrictions removed by the Bay Conservation and Development Commission on developing the tidelands of the San Francisco Bay.
5. Optimum development of the Foothill area.

While growth in the mid-peninsula area is inevitable, the quantity is in question. Many citizens in the area are developing and voicing a "stop the growth" philosophy in an effort to forego growth to protect the urban living conditions. Additional growth, it is felt, will attract new people and compound existing social and economic problems.

Regardless of the opposition, with or without the Willow Expressway, some economic growth will occur. However, the expressway, by reason of providing increased accessibility, will increase the development potential of the area. To that end, the expressway can contribute to the area's future development.

b. Specific Economic Effects (Route E)

The specific effects of the proposed Route E alignment on the economy of the area will be the removal of 34 small businesses, mostly engaged in retail sales and service-type activities. These businesses are extended in a strip commercial pattern along the existing

Willow Road from Gilbert Street, west of the Bayshore Freeway to the Southern Pacific Dumbarton Branch line, east of Bayshore. Some of these businesses are marginally operated and will perhaps benefit under the State Relocation Assistance Program, that provides for discontinued business payments in lieu of actual moving cost. This payment may be used for reestablishing the business. All businesses will receive assistance in finding new business locations.

The net effect of the expressway on employment by the removal of the business along the alignment will perhaps initially expose some employees to a short term of unemployment. However, it is assumed that most of the businesses will reestablish in the area and reabsorb these employees. New jobs created in the mid-peninsula labor market could also provide a cushion for future employment opportunities for the affected employees.

In aggregate, the businesses to be removed along the expressway alignment serve as a neighborhood shopping area for nearby residents. In particular, they provide the only source of goods and services, within convenient walking distance, to the low income residents of the adjoining communities of Belle Haven and the portion of East Palo Alto which is near Willow Road. The removal of these businesses will most certainly create a hardship for these residents as alternative shopping areas are beyond convenient walking distance. There is urgent need to plan for the replacement of some retail sales and service activities in the general area.

A 701 federally funded land use and planning study is currently under way for Bell Haven and East Palo Alto. The study was designed to identify the physical, social, and economic problems of this economically depressed area and to assist in the formulation of an application for HUD funds for a neighborhood development project for these areas. The Division of Highways should continue to maintain liaison with the city and county and the consulting firms to identify replacement commercial sites and to encourage rezoning, if needed, to insure the use of these sites for commercial purposes.

A one-block portion of the strip commercial along Willow Road between Durham and Chester Streets will not be taken by the proposed expressway alignment. Construction of the expressway would isolate this shopping area between the existing Willow Road and the expressway. The City of Menlo Park and its planning

consultants feel that these businesses will be left in an inappropriate location, and they have expressed a desire to have these businesses relocated.

Further consideration will be given in the design stage to the alignment of the expressway between Gilbert Avenue and the Bayshore Freeway and the location-design of the interchange at the freeway. If the expressway can be shifted toward existing Willow Road, it may be possible to acquire the commercial establishments (as the city staff has recommended) and at the same time it may be possible to acquire fewer homes, less of the Willow Elementary School and Willow Oaks Park properties, and consequently, less excess land.

H. Residential Neighborhoods, Including Housing Supply, Displacement, Character and Replacement Housing

a. Housing Supply

The most critical issue on this project is that of housing. The project area -- Palo Alto, Menlo Park and East Palo Alto -- suffers from an acute housing shortage, primarily in the low to moderate income category. This lack of low-cost housing is not only confined to the project area, but is also a characteristic of the mid-peninsula region and the Bay area as a whole.

The original development in the area was around Stanford University. Initially communities grew and developed as necessary support functions to the University, and later as bedroom communities for the City of San Francisco. This trend continued until the mid-1940's at which time the area began to develop a strong economic base of its own. A good portion of this was industry which located near Stanford University because of its engineering schools. This growth has expanded to the point where more workers are now coming into the area than are commuting out to other areas. Over the entire project area, approximately 25 percent of the residents are employed outside the general community; conversely, more than 30 percent of the local labor force is commuting in. This is particularly evident in the City of Palo Alto where it is estimated that there are two jobs for every resident in the labor force.

Under normal circumstances, if the State is able to satisfactorily relocate the persons displaced, this relatively small reduction in the housing stock

would not be a major concern to the affected communities. Usually there is sufficient land for the community to expand and the monies used in acquiring the land for a project ultimately generate a replacement housing stock. This does not appear to be the case here because of the shortage of readily available land.

The housing supplement payments, which are part of the State's relocation plan (anticipated to be up to \$15,000 for home owners and up to \$4,000 for tenants) may allow the displaced persons to relocate in the communities to their personal satisfaction. However, these payments may be detrimental to the total housing picture. The supplemental housing payments could place the persons who will be relocating at an unfair economic advantage over those persons who are not being displaced by the project, but who are also seeking housing in the area. The displacees, while taking up the majority of available housing in the community, may also drive the housing prices upward. For these reasons, the communities have expressed a strong desire for the State to provide as much replacement housing as possible.

There are some groups promoting "one-for-one" replacement by the State. By "one-for-one" it is meant not just one specific unit to be offered to each displacee but the actual construction of a number of living units equal to the number removed by the project without regard to the number actually required by the displacees.

The communities are, therefore, asking for a replacement housing program that goes beyond assuring that each displaced family will be able to secure a replacement unit adequate to their needs and within their means. They are mindful of the area's housing shortage and desire the smallest amount of direct reduction in the housing stock that is possible. Therefore, following is a detailed discussion which explores not only the means necessary to provide adequate replacement housing for the displacees, but the anticipated effects on the overall housing stock.

b. Neighborhoods

In the course of the study, there were found to be four distinct housing areas traversed by the proposed expressway, each having different needs. The following detailed discussion of the replacement housing problems involved with the expressway is broken down into four areas or neighborhoods.

1. Belle Haven - East Palo Alto

Belle Haven and East Palo Alto are two politically distinct neighborhoods. Belle Haven is a neighborhood of the City of Menlo Park and East Palo Alto is an unincorporated portion of the County of San Mateo. However, the fortunes of Belle Haven and East Palo Alto are closely associated and the areas are very similar in character. Therefore, these two neighborhoods are being taken together as a single housing area.

Belle Haven: As mentioned above, Belle Haven is a portion of the City of Menlo Park; however, in many ways it is separate and distinct from the city. First, it is physically isolated from the rest of the city by the Bayshore Freeway, with its only point of vehicular access by way of Willow Road across the Bayshore-Willow Road Interchange. Secondly, it is economically distinct -- its median income per household is \$5,417 as compared with the city's median income of \$9,950. Third, Belle Haven contains 95.2 percent of Menlo Park's black population (Belle Haven is 95.1 percent black).

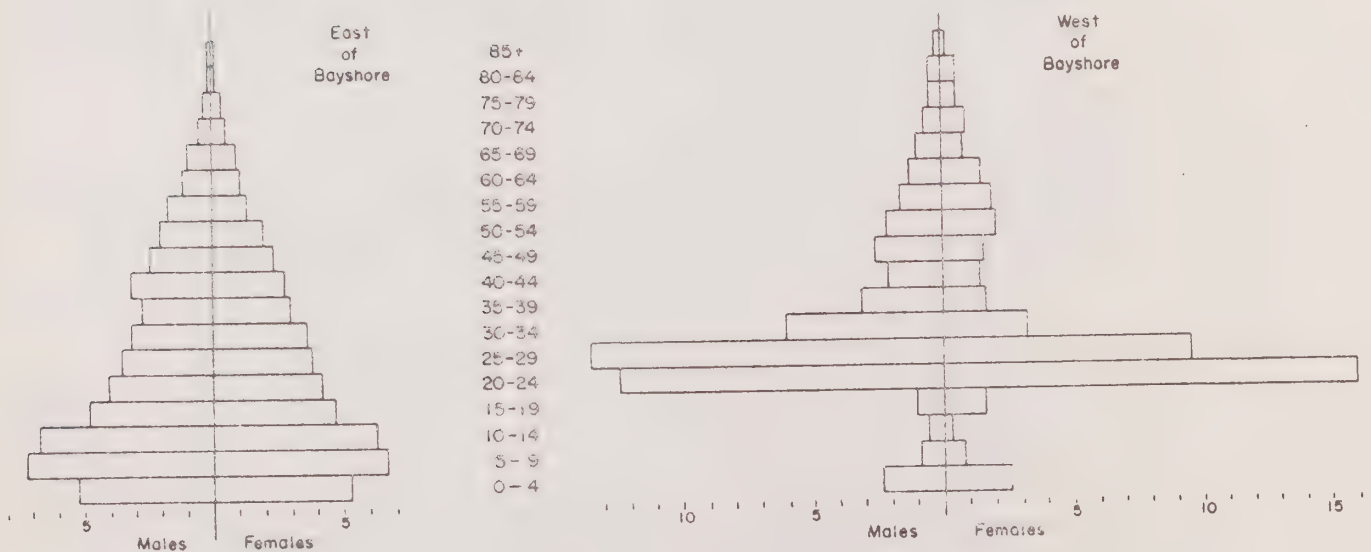
Geographically, Belle Haven is triangular in shape East of Route 101. It is bounded and isolated on two sides by the Bayshore Freeway and the Southern Pacific Railroad's Dumbarton Branch line and is bounded on its third side by existing Willow Road. The area is roughly 250 acres in size and is developed with 1,357 dwelling units (963 single-family residences and 394 multiple-family and other type living units). Most of the area is developed with low-cost housing, the major portion of which has been constructed since the end of World War II. Belle Haven's edges along Bayshore and Willow Road are developed primarily with multiple-family residences with the third side occupied by a small amount of light industry.

East Palo Alto: East Palo Alto is similar in many ways to Belle Haven and lies immediately to the south of it. While East Palo Alto is an unincorporated portion of San Mateo County, it does have a functioning municipal council which advises the San Mateo Board of Supervisors on all matters pertaining to East Palo Alto. As a practical matter, the East Palo Alto Municipal Council fulfills and performs all functions of a city council and its

members are elected by the local community. Mainly for economic reasons, East Palo Alto has not been able to incorporate as an independent city. East Palo Alto lacks the commercial and industrial base that would be necessary to economically sustain itself and, therefore, must rely on the county for its support and services.

A portion of East Palo Alto lies on the west side of Bayshore Freeway. The portion which is on the west of Bayshore is entirely distinct and different from that portion which is on the east. The section east of Bayshore has a median income of \$6,835 as compared to the west section's \$8,619 per household. The racial composition east of Bayshore is 74.1 percent black, while the west is 90.6 percent white. The age distribution pyramids (see Figure 1) are entirely different.

Figure 1



Both East Palo Alto and the Belle Haven neighborhoods are beset with many of the social problems characteristic of a low-income ghetto area. Currently, both areas are jointly engaged in a federally funded 701 Study which, at its completion, should lead to a multi-faceted attack on the area's joint problems -- not the least of these is housing.

Effect on Housing: Through the East Palo Alto-Belle Haven neighborhoods there are two alternate proposals for the alignment of the expressway. The first alignment would pass through the area along and to the south of Willow Road. This particular alignment would require a total of 17 living units, all from East Palo Alto. Fifteen of these improvements are single-family residences and one property is improved with both a single-family residence and a single-rental unit. The second alternate alignment for the expressway would also be along existing Willow Road, but on the north side. In addition to requiring the same 17 units from East Palo Alto as the other alignment, this one would require a total of 160 units from Belle Haven; 159 of these units are multiple-family and one is a single-family residence. The apartments which would be affected by this northerly alignment are of a low-quality and rent for approximately \$100 per month. Better than 90 percent of the units are one-bedroom, one-bath in size.



Multiple-Family Living Units
North of Willow Road

Because of the low-quality living conditions in these units, it was suggested to the Division of Highways that the northerly alignment be selected assuming the State could provide adequate decent, safe and sanitary housing for those displaced. The suggestion came from East Palo Alto Municipal Council, Belle Haven Advisory Committee, City Council of Menlo Park and the East Bayshore Design Center. The Belle Haven Advisory Committee is the local citizens' committee which, along with its other duties, advises the Menlo Park City Council on matters pertaining to the Belle Haven neighborhood.

Of the 17 single-family residences which are required from East Palo Alto by either alignment, it is estimated that 13 are owner-occupied and four are tenant-occupied. In December 1970, the Division of Highways made a housing availability survey covering the entire project area. A detailed analysis of the current housing stock of East Palo Alto indicates the 17 families displaced could relocate with relative ease.

Figure 2 shows the current estimated value of the homes required for the expressway and the number of homes available in the East Palo Alto neighborhood by listing price and size. This chart contains only the homes in East Palo Alto which are east of Bayshore.

Figure 2
EAST PALO ALTO HOUSING

ESTIMATED VALUE	REQUIRED BY EXPRESSWAY	ON MARKET 12/70 BY NUMBER OF BEDROOMS AND BATHS				
		1+1	2+1	3+1	4+1	TOTAL
10,000 - 12,499	0	0	0	0	0	0
12,500 - 14,999	5	1	0	0	0	1
15,000 - 17,499	10	0	2	0	0	2
17,500 - 19,999	1	0	2	8	1	11
20,000 - 24,999	0	0	0	6	0	6
25,000 - 29,999	1	0	2	2	0	4
TOTAL	17	1	6	16	1	24

From the demographic information available, the size and quality of the homes available match the displacees' needs. There is a price disparity between the market value of the homes to be acquired and those which are available for replacement; however, assuming the new maximum replacement housing supplement for home owners, of up to \$15,000, it appears these homes could easily be put within the economic reach of the displacees.

Examination of the rental market indicates that the tenant-occupants of the single-family residences should also be able to relocate in the immediate area. Some portion of the \$4,000 maximum grant to tenants would be necessary to achieve this goal, but at this time there does not appear to be any severe difficulties.

Furthermore, the reduction of East Palo Alto's housing stock by 17 homes does not appear to be a serious problem. East Palo Alto does have the ability to moderately increase its housing stock and there is some privately owned vacant land available. Currently, East Palo Alto is studying the means by which it can better utilize its lands for housing. Also, the Division of Highways currently owns five vacant residential lots purchased for the adopted freeway alignment. The Division of Highways also purchased approximately 1.5 acres of land fronting on East Bayshore Road for the adopted route. This land appears to be suitable for multiple residential construction if the alternate route is adopted. If these lots and the land along East Bayshore Road can be made available for housing, the overall housing stock of East Palo Alto can be increased rather than diminished.

Unlike the single-family residences in East Palo Alto, removal of the apartments in Belle Haven does present a severe housing problem. These particular units represent approximately 20 percent of the entire City of Menlo Park's housing stock in the \$100 to \$125 per month category. The detailed analysis of available housing in this category, including both Belle Haven and all of East Palo Alto (east and west of Bayshore) shows that slightly less than 20 percent of the required replacements are available at this time. Furthermore, to meet the definitions of decent, safe and sanitary, many of the replacement units would have to have more bedrooms than the tenants now occupy.

Investigation was made into the land available in the general area which would be suitable replacement sites for the apartments. There was found to be sufficient land to construct replacement units. At the present time, there are approximately 1.5 acres of privately owned vacant land in Belle Haven, which is suitably zoned, along Bayshore Freeway and fronting on Pierce Road. Also, the Division of Highways has acquired for the adopted route a total of 4.5 acres of suitable land. The first site is the aforementioned 1.5 acres in East Palo Alto fronting on East Bayshore Road; the other two sites are west of Bayshore. One is approximately 2.2 acres in size, located on O'Keefe Street near Menalto Avenue; the other is 0.8 acres fronting on Alma Street between East Creek Drive and Willow Road.

The Ralph Act would need to be instituted in order to allow construction of a sufficient amount of replacement housing. There is little doubt that the area fully qualifies under the conditions necessary for the implementation of the Ralph Act. However, because of limitations in the Act itself, it does not appear that the total 159 units can be directly constructed by the State.

The first limitation the Act places upon State construction is that only units which are necessary for the displacees can be constructed. The limited experience that the Division of Highways has with utilizing the Act indicates that even under extreme housing conditions no more than 75 percent of the eligible tenant displacees on any one project will accept Ralph Act housing in lieu of the \$1,500 cash grant which has been in effect to date. With the increased maximum grant of up to \$4,000 for tenants, it is estimated that less than 50 percent would accept the new housing in lieu of the cash. A lump sum payment approaching \$4,000 is very tempting to families whose total annual income is normally less than that amount.

The census data indicates that the tenants occupying the apartment units are highly mobile. It is projected that a substantial number of the tenants will leave the community even if they are not displaced by the highway. With a large economic incentive to leave, this process could be expected to accelerate.

This mobility of the apartment tenants raises a second problem -- eligibility. To be eligible for the State's relocation program, the tenants must have occupied the property 90 days prior to the State's first written offer to purchase. Based on the mobility patterns, even if the property was purchased by the State on the same day that the first written offer was made, 18 percent of the tenants would be ineligible because of the lack of the required 90-day residency. Typically, it has been the Division's experience that properties such as these take up to an average of one year to acquire from the date of initiation of negotiations. Better than 50 percent of the tenants in the apartments have occupied them for less than a year. Figure 3 shows the percentage of residents that would not meet the 90-day residency requirement for various periods of acquisition time.

Figure 3

PERCENT OF APARTMENT RESIDENTS
NOT MEETING RESIDENCE REQUIREMENT
(90 DAYS)

<u>Time Between Offer and Acquisition</u>	<u>Percent Not Eligible - Time*</u>
0 Days	18.3
3 Months	34.0
9 Months	51.3
21 Months	71.7

* Based on length of time in residence,
reported by apartment residents, 1969,
San Mateo County Special Census.

This chart, assuming the acquisition time to be held to nine months, shows better than half of the residents would not be eligible for relocation assistance.

Additionally, 10 percent of the remaining persons who would qualify under the residency requirement would be ineligible for Ralph Act replacement housing because of income qualifications. Currently, the Division of Highways uses the maximum entry levels for FHA-financed 235-236 housing as its upper limit for income eligibility. For this area, the current maximum entry level income is approximately \$7,500 gross for a family of two.

Therefore, taking all these factors together, it would be expected that the State could replace no more than 20 percent to 30 percent of the total apartment units required. A greater number of units could possibly be constructed through extensive cooperation with the local community with the State providing a portion of the funding for some larger housing projects. It is, however, the community's goal to increase the total low-income housing stock rather than just keep it at a static amount. Heavy reliance upon other community resources to generate the necessary housing may severely diminish those resources that would otherwise be available for generating an increased supply of low-cost housing.

As mentioned before, in recommending that the State align the highway north of Willow Road through the apartments, the community made it explicitly clear that this was the preferred alternate ONLY if satisfactory replacement housing for the tenants could be supplied by the State. In that low-cost housing is a very critical item to the affected community and it is necessary to know the future of these apartments for the community to plan the upgrading of itself, it is proposed that should the expressway be adopted, the State proceed with all due haste to complete detailed housing studies which should spell out the precise amount of new housing that the State could generate in co-operation with the City of Menlo Park and the East Palo Alto Municipal Council, County of San Mateo.

In summary, unless detailed housing studies show that a substantial quantity of new low-cost housing can be constructed as replacement, it does not appear desirable from the community's standpoint to choose the north of Willow alignment.

2. Menalto

The second major housing area to be affected by the proposed expressway is what in this paper will be called the Menalto neighborhood of Menlo Park. This area of Menlo Park is roughly bounded by Bayshore Highway on the east, existing Willow Road on the north, and by San Francisquito Creek on the southwest. Over the last 20 years, Menalto has been almost completely developed with single-family residences. The neighborhood contains two elementary schools, a junior high school,

an active park and two small neighborhood shopping areas. Demographic information from the various census show that this area is a typical Bay area middle-class residential neighborhood. The population is approximately 95 percent caucasian, median age is 35, median income is near \$10,000, and the value of the homes range from approximately \$20,000 to \$35,000. The overall picture of Menalto is one of a mature, stable neighborhood.

Effect on Housing: The proposed expressway would require 126 living units from the Menalto area (112 single-family residences and 14 multi-family units). The single-family residences required range from approximately \$20,000 to \$30,000 in value and are slightly greater than 80 percent owner-occupied. The multi-family living units are at scattered locations along the proposed routing and are generally found in conjunction with a commercial property or are small units built on the rear of property also occupied by a single-family residence. Most of the multi-family units appear to be occupied by retired persons or students.

The December 1970 housing availability survey shows that in the immediate general vicinity there are approximately 150 single-family residences which would be suitable replacements for the home owners. The prices averaged slightly higher than the market value of the homes to be acquired; however, with a relocation assistance payment available to home owners, they are expected to experience little economic difficulty in acquiring these units if given sufficient time.

The persons being displaced from the Menalto neighborhood will also be competing with the persons who will be displaced from the next major housing area to be discussed (Palo Alto), and at any one point in time there does not appear to be enough housing to go around. Furthermore, as previously mentioned, there is very little available vacant land in Menlo Park upon which to replenish the housing stock which will be diminished by the highway's requirements. Under normal circumstances the State's acquisition would be expected to stimulate the housing construction industry by making substantial sums of money available to the market. Because of the lack of land, there is some doubt as to the quantity of new housing which

could ultimately be constructed in the affected cities. Also, as previously mentioned, the people being displaced will be in direct competition with the area's normal housing market. With the relocation supplement, the displacees have an economic advantage and will probably secure for themselves the available housing. But this will be to the detriment of the general community and quite possibly will cause some amount of short term inflation in the housing market. To lessen the impact of the above, the right of way acquisition period should be extended from its normal two- to three-year period. It is estimated that a five-year acquisition and displacement period will markedly reduce the effects of competition and inflation in the housing market.

If the right of way acquisition is completed within the first three years, and displacements are scheduled over the entire five years to require displacement of no more than 75 families per year from the areas west of Bayshore, the owner-occupants should experience little difficulty relocating through the utilization of the supplemental payment. The general housing market should be able to absorb them without a noticeable increase in real estate prices.

There is some possibility that the constricted housing market, which the project area now suffers, may lessen in the future should the tight money market continue to loosen as it has over the period of the last six months, and if new lands are ultimately opened for development either in the Foothill region or in the Bay lands.

Should this occur, the right of way acquisition and displacement period could possibly be shortened. The possibility at this time of the openings of new lands for development in Menlo Park appear remote. However, it appears desirable to have the right of way acquisition-construction stages completed as quickly as possible if the housing problem should be otherwise resolved.

The tenant-occupants, both in the single-family residences and the multiple-family units, face problems similar to the home owners and the same recommendations apply; i.e., if given enough time and through the utilization of supplemental housing payments, they will ultimately be able to satisfactorily relocate, even in this area of acute housing shortage.

3. Northwest Palo Alto

The third major housing area is the northwest neighborhood of Palo Alto. This neighborhood is north of and immediately adjacent to the downtown Central Business District of Palo Alto. It is bounded on its south side by the Central Business District, on the west by Southern Pacific Railroad tracks, and on the northeast side by San Francisquito Creek. While this area is primarily devoted to residential usage, it is not of a single type. The residents do not fall into a general economic category or age group, but rather this area is singularly characterized as being a thorough economic, employment, and age mix. Because current demographic information was not available for this area, the Division surveyed the residents who would be displaced by the proposed expressway.



View of Lower Cost Units in Palo Alto

The results show that this residential neighborhood is considerably different from what is normally encountered in urban areas, and the housing needs of the residents do not fall into easily definable categories. Therefore, a detailed summary of the survey is presented here. The survey covered the 125 living units which would be required for the expressway. Fifty-six of these units are single-family residences and the remaining 69 are multi-family units. Of the total of 125 units, only two were vacant and these were not available for occupancy. Of the remaining 123 units, 26.8 percent were owner-occupied and the other 73.2 percent were tenant-occupied.

The survey team obtained responses from 104 (83.2 percent) of the total living units. Of the respondents, 29.8 percent were owner-occupants and 70.2 percent were tenants. In the following figures, the percentages shown are based on the total number of valid responses and exclude those persons who did not respond.

Population Characteristics: By observation, the racial distribution was found to be 97.1 percent caucasian and 2.9 percent Spanish surname.

Figure 4 shows the age distribution of the population which would be displaced by the expressway. The age distribution was broken down into owner-occupant and tenant-occupant categories. The owner-occupants tended to be much older than the tenants. This is brought about by the fact that a large proportion of the owner-occupants are retired.

Figure 4 indicates that slightly better than 45 percent of the owners are beyond age 65 and better than 75 percent fall into the 50+ category. On the other hand, the tenant-occupants have a median age of 28. Better than 45 percent of them fall into the 20-29 years-of-age category.

Figure 4

Age Distribution

Age	Owners %	Tenants %	Total %
0-4	0.0	3.1	2.2
5-9	1.6	1.9	1.8
10-14	3.2	0.6	1.3
15-19	0.0	3.7	2.7
20-24	3.2	30.2	22.8
25-29	3.2	16.6	13.0
30-34	9.7	6.2	7.1
35-39	3.2	4.3	4.0
40-44	0.0	1.9	1.3
45-49	0.0	4.9	3.6
50-54	8.1	6.2	6.7
55-59	12.9	7.4	8.9
60-64	9.7	3.1	4.9
65-69	9.7	1.2	3.6
70-74	9.7	6.8	7.6
75+	25.8	1.9	8.5
Median Age	63	28	39

No Response = 1

Figure 5 gives the employment status of the head of household. Note that 61 percent of the owner-occupants reported that they are retired and that 60 percent of the tenants report they are currently employed. Of the total population, approximately 30 percent are retired and 16 percent are students. Most of these students attend Stanford University.

Figure 5

EMPLOYMENT STATUS OF
HEAD OF HOUSEHOLD

Employment Category	% Owners	% Tenants	% Total
Employed	25.8	60.3	50.0
Retired	61.2	16.4	29.8
Student	6.5	20.6	16.3
Unemployed	6.5	2.7	3.9

No Response = 0

Figure 6 shows the reported total household income for 1969. The large disparity in reported income between owner and tenants is apparently due to the fact a large number of owners who are retired have fixed incomes. Although the tenant-occupants have a substantially greater median income, it still falls more than \$1,000 below the total City of Palo Alto's 1965 reported median income. If the 1965 figure is inflated to 1969 dollars, the disparity would rise to approximately \$3,000.

Figure 6

TOTAL 1969 HOUSEHOLD INCOME

Income	% Owners	% Tenants	% Total
Under 2000	14.8	8.2	10.2
2000 - 3999	25.9	8.2	13.6
4000 - 5999	18.6	8.2	11.4
6000 - 7999	7.4	18.1	14.8
8000 - 9999	7.4	13.1	11.4
10000 - 12499	7.4	11.5	10.2
12500 - 14999	7.4	9.8	9.1
15000 - 17499	0.0	4.9	3.4
17500 - 19999	7.4	4.9	5.7
20000 - and over	3.7	13.1	10.2
Median Income	\$5000	\$9125	\$7999

No Response = 14 (13.5%)

The average household size was reported at 2.0 for the owner-occupants and 2.2 for tenants.

Mobility: Two questions were asked in the survey which indicate the residents' mobility. Figure 7 shows the time in the mid-peninsula area and Figure 8 shows the length of occupancy in the present housing unit. There is a large difference between the length of time that owners have lived in the mid-peninsula area versus the tenants. Ninety-six and eight tenths percent of the owners have lived in the mid-peninsula area more than ten years, while more than 50 percent of the tenants have lived there less than six years.

Figure 7

HOW LONG LIVED IN MID-PENINSULA AREA?

Years	% Owners	% Tenants	% Total
Less than 1	0	17.8	12.5
1-2	3.2	9.6	7.7
3-4	0	11.0	7.7
5-6	0	19.2	13.5
7-8	0	9.6	6.7
9-10	0	1.4	1.0
10 +	96.8	31.4	50.9

No Response = 0

Figure 8

HOW LONG LIVED IN PRESENT HOUSING UNIT?

Years	% Owner	% Tenants	% Total
Less than 1	3.2	41.1	29.8
1-2	13.0	23.3	20.2
3-4	6.5	6.8	6.7
5-6	3.2	11.0	8.7
7-8	3.2	9.6	7.7
9-10	3.2	0.0	1.0
10 +	67.7	8.2	25.9

No Response = 0

Figure 8 shows the difference in mobility between the two groups. Approximately 2/3 of the owners have lived in their present house more than ten years while an equal number of tenants have lived in their current residence less than three years.

Housing Desires: Figure 9 shows the distribution of the housing units by categories of number of rooms and baths. As might be expected, the single-family residences tended to be larger than the multi-family residences. More than 80 per-cent of the single-family residences had more than one bedroom, while the predominant category in the multi-family residences was the one-bedroom, one-bath unit.

Figure 9

SIZE OF CURRENTLY OCCUPIED HOUSING UNITS

Bedrooms and Baths	% Single-Family Residences	% Multi-Family Residences
1 + 1	16.0	50.9
2 + 1	32.0	28.3
2 + 2	2.0	13.2
3 + 1	20.0	3.8
3 + 2	12.0	3.8
4 + 1	2.0	X
4 + 2	6.0	
5 + 1	2.0	
5 + 2	6.0	
6 + x	2.0	

No Response = 0

The single-family residential units range is estimated value from \$20,000 to over \$60,000 with the average value being approximately \$34,000. Of the rental rates shown in Figure 10, the categories above \$250 are predominately single-family residences and those below \$200 are predominantly multi-family units.

Figure 10

RENTAL RATE
(Tenants Only)

Dollars per Month	%
Less than 50	1.4
50-99	8.5
100-149	14.1
150-199	47.9
200-249	7.0
250-299	15.5
300-349	1.4
350 +	4.2

No Response = 2

The employed residents were questioned as to their proximity to their employment (see Figure 11). Approximately 54 percent reported they worked within a four-mile radius, while 46 percent indicated that they commuted more than five miles to work. Also, the employed residents reported that approximately 70 percent of the families have at least one member working within the city limits of Palo Alto, Menlo Park, or at Stanford University.

Figure 11

EMPLOYED RESIDENTS
PROXIMITY TO PLACE OF EMPLOYMENT

Miles to Employment	%
Less than 1	27.1
1-2	12.5
3-4	14.6
5-6	12.5
7-8	2.1
9-10	2.1
10 +	29.2

The survey included two questions on the type of housing and the location preferred if the proposed displacees were to move. Approximately 2/3 of the home owners stated they would prefer to go back into a single-family residence (see Figure 12), while 44.8 percent of the tenants stated that they would prefer a single-family residence (31.5 percent of the tenants now occupy single-family residences).

Figure 12

IF YOU WERE TO MOVE WHAT TYPE
OF HOUSING WOULD YOU PREFER?

Housing Type	% Owners	% Tenants
Single-Family Residence	63.0	44.8
Multi-Family Residence	33.3	53.7
Mobile Home	3.7	1.5

No Response = 10

Figure 13 shows the preferred housing area. In excess of 80 percent of all occupants indicated they wish to remain in the Palo Alto-Menlo Park area. Approximately 15 percent indicated to another question that they did plan to move within the next year, and 2/3 of these people indicated they would be moving outside the mid-peninsula area.

Figure 13

IF YOU WERE TO MOVE WHAT
AREA WOULD YOU PREFER?

Area	% Owners	% Tenants
Palo Alto Menlo Park	89.3	81.5
Other than Palo Alto Menlo Park	10.7	18.5

No Response = 11

Palo Alto Relocates' Housing Needs: The 104 completed questionnaires were examined individually in detail to determine an estimate of the Palo Alto displacees' housing needs. A determination was made as to the type, size, and cost of replacement housing that would be necessary. Consideration was given to the respondents' desired type and location of housing, family size, age, income level, rental rate or fair market value of current residence, size and type of the current residence, and the estimated amount of their supplemental housing payment. The resultant tally was then prorated to account for the residents not included in the survey.

It is estimated that two of the 125 units will be vacant at the time of acquisition and 32 of the families will be moving out of the area for reasons unrelated to the proposed highway's construction. It was assumed that the time between initiation of acquisition and the final date for relocation will be five years. Therefore, the students who did not reside in the mid-peninsula area prior to their enrollment at Stanford University will most likely graduate and be leaving the area. They were counted in with those who will not relocate in the Palo Alto-Menlo Park area.

Figure 14 shows that 29 single-family residences will be required for purchase. Figure 15 indicates there will be a need for 16 single-family residences for rental. Finally, Figure 16 indicates 49 multiple-family residences will be needed for rental in the immediate area.

Figure 14

ESTIMATED NUMBER OF SINGLE-FAMILY RESIDENCES
FOR PURCHASE REQUIRED BY PALO ALTO
DISPLACED IN IMMEDIATE AREA

Price-Range	Bedrooms				Total
	1	2	3	4	
20,000 - 24,999	1	1	1	0	3
25,000 - 29,999	0	4	0	0	4
30,000 - 34,999	2	5	3	0	10
35,000 - 39,999	0	7	2	0	9
40,000 +	0	1	1	1	3
Total	3	18	7	1	29

Figure 15

ESTIMATED NUMBER RENTAL
SINGLE-FAMILY RESIDENCES NEEDED
FOR PALO ALTO DISPLACED
IN IMMEDIATE AREA

Rental Range Dollars Per Month	Bedrooms					Total
	1	2	3	4	5+	
100 - 149	1	0	0	0	0	1
150 - 199	1	4	0	0	0	5
200 - 249	1	1	0	0	0	2
250 - 299	0	0	0	0	0	0
300 - 349	0	1	3	0	0	4
350+	0	0	0	3	1	4
TOTAL	3	6	3	3	1	16

Figure 16

ESTIMATED NUMBER OF MULTI-FAMILY RESIDENCES NEEDED FOR PALO ALTO DISPLACED IN THE IMMEDIATE AREA

Rental Rate Dollars Per Month	Bedrooms			Total
	1	2	3	
100-149	5	0	0	5
150-199	7	1	0	8
200-249	18	6	0	24
250-299	3	4	0	7
300-349	1	1	3	5
TOTAL	34	12	3	49

The numbers of required units by type, size and cost were compared with the current market availability. It was found that for those who will be purchasing or renting single-family residences, if they are allowed an extended acquisition and relocation period, they should experience little difficulty in securing satisfactory housing. Like their counterparts in Menlo Park, their displacement should be scheduled so as not to cause an inflationary housing market.

Those displaced who will be seeking multi-family residences in the \$200 per-month-plus categories can likewise be absorbed into the current existing and future housing supply. However, assuming the housing market over the next six years is as relatively deficient as it is today, those persons in the "under \$200" category will experience difficulty. These persons are in the lower income brackets and many have fixed incomes. It appears that the only satisfactory means to assure relocation in the immediate area would be for the construction of 10 to 13 new low-to-moderate income housing units.

Because low-income housing projects are uneconomic to build in small quantities, especially in light of the land prices, in Palo Alto, it is proposed that the State seek, if legally possible, to enter

into joint housing projects with one of the local entities which is also seeking to build low-cost housing and that the State financially aid and support a portion of such a project.

Even with the State building 10 to 13 units, the net reduction of housing will still have a significant impact upon this area's critically deficient housing. Special attention should be given to the possibility of the State disposing of its excess land acquired for the adopted route in such a way as to maximize the possibility that low-to-moderate income housing will be built on it. Early consideration should also be given to assessing and implementing the new powers granted by the Federal Government to State agencies under the 1970 Senate Bill No. 1 which includes no-interest or low-interest loans to groups and individuals desiring to build such housing.

4. East Creek Drive Housing Area

The fourth and final area where housing will be required for the expressway is in Menlo Park near East Creek Drive. From this area, which borders upon San Francisquito Creek, nine single-family residences would be required. Because of the market value of these homes (\$40,000 to \$60,000+), the income level of the owner-occupants and the general availability of comparable housing, no relocation problems are foreseen for these families.

c. Effects on Residential Character

Further impact to the residential neighborhoods could come through an increased noise level and visual impact. To minimize this, the proposed expressway facility is fully depressed 20 feet through most of Palo Alto where there are no ground-level intersections. Fully depressed construction tends to minimize noise problems caused by the operation of highways. It also greatly reduces the visual impact upon the neighboring lands. When landscaped, such highways appear as green belts for the ground-level viewer.

There would be a two-block area of Palo Alto, between Bryant and Tasso Streets, that would be effectively placed on an island, bounded on one side by the expressway and on the other, by San Francisquito Creek. To provide adequate vehicular access to this area, Waverly Street would be left open with a ground-level crossing

over the expressway. Emergency vehicular access would be provided to Middlefield Road at the easterly end of this area. Bicycling and pedestrian access would be continued at this point.

It is also anticipated that a new park area will be developed in conjunction with the relocation of a portion of San Francisquito Creek and that bike and pedestrian access to this area would be provided back into Palo Alto at Alma Street. Access to Menlo Park will be furnished by several pedestrian crossings over the creek. After the construction of the highway, this small residential area will be completely ringed with park-like areas, and it is not anticipated that it will suffer any diminution in value or loss of utility.

From Middlefield Road to the Bayshore Freeway, in order to provide intersections with the local street pattern, the expressway will be depressed only five to six feet. To lessen the noise impact, it is contemplated that earthen berms and/or masonry noise-attenuating walls will be incorporated into the right of way (see Exhibit F). In cooperation with the City of Menlo Park, a plan was developed to lessen the visual impact whereby substantial portions of the excess land acquired would be heavily landscaped and utilized for pedestrian and bicycling paths.

To avoid segmenting the Menalto neighborhood from the rest of Menlo Park, sufficient cross connections would be left open. Provisions are incorporated into the design to allow pedestrian access from Woodland Avenue to Middlefield Road at their current intersection, which will be closed to vehicles by the expressway. Vehicular access to Middlefield Road will be restored by a new bridge crossing of the creek near Lexington Drive.

To avoid the further isolation of Belle Haven, adequate access will be provided at three signalized intersections. To minimize the visual impact, consideration is being given to a green belt type of development on the excess lands which will be acquired in conjunction with the necessary right of way. One possible plan is shown in Exhibit H (North of Willow Alignment).

If the active play area, shown near Alberní and O'Brien Streets can be constructed, it would be of great benefit to the community. The area is lacking in adequate parks. However, it is possible that the land which this play

area would occupy would be more valuable to the community as a site for replacement of some of the retail facilities removed by the expressway. It is proposed that the usage of this excess land be explored with the consulting firms preparing the 701 Study for East Palo Alto and Belle Haven. The resulting conclusions should be presented to the East Palo Alto Municipal Council and the Belle Haven Advisory Board for their final decision.

I. Property Values and Property Tax Impact

Due to the housing shortage in the area, it is expected that the loss of 185 single-family and 30 multiple-family residences (representing 83 families) will have an inflationary effect. With supplementary payments to renters and home owners, the displaced families will have funds to find proper housing. To prevent rapid increases in property values and rental rates, it is proposed to purchase the properties over as long a time span as possible. These effects will be further mitigated if cooperative efforts of the State and local agencies result in the construction of new low-to-middle income housing units.

There are four tax assessment districts which would be affected by a reduction of more than one percent of their assessed valuation by the Route E expressway. These assessment districts and their reduction in an assessed valuation are as follows:

	<u>Alignment North of Willow Rd.</u>	<u>Alignment South of Willow Rd.</u>
Ravenswood Elementary School District	2.5%	2.0%
Ravenswood Slough Flood Zone	4.3%	3.5%
North Palo Alto Lighting District	1.3%	1.3%
City of Menlo Park	1.3%	1.2%

Assuming the worst case conditions (north of Willow Road alignment), the Ravenswood School District would suffer a reduction in revenues from property taxes of 2.5 percent. The effect of the expressway's short-term reduction in property tax revenue was discussed with the school officials. There was a consensus that this reduction, spread out over

the anticipated right of way acquisition period, would be offset by a corresponding reduction in pupils attending the school. This reduction in pupils is expected to come about by the relocation of families because of the expressway and because the anticipated number of elementary school-age children in the community is declining. The school district is exploring the possibility of consolidating some of its schools.

The effect upon Ravenswood Slough Flood Zone does present a problem for the affected communities. They have found it necessary to proceed with plans for additional drainage systems. The area is rather low lying and there is a problem at the present time with surface water conditions. Because the proposed drainage systems will have a substantial effect upon the tax rates assessed the local owners, the 4.3 percent reduction in assessed value will be noticeable. The local jurisdictions have approached the State seeking a grant from it commensurate with the amount of storm waters coming from Bayshore Freeway and the proposed expressway. Because of the importance of resolving the financing of that project, the County of San Mateo and the East Palo Alto Municipal Council have asked that the resolution of the State's possible contribution be expedited.

The North Palo Alto Lighting District is a very small district, approximately five city blocks in size, with an assessed valuation of approximately \$250,000. The 1.3 percent effect upon the district tax base springs from the fact that the State will be buying a single residential property in the lighting district. In that the State will most likely be returning land acquired for the adopted freeway route to the tax base equal to about one-third of the district's total assessed valuation, there seems to be no lasting detrimental effects to this small lighting district.

The 1.3 percent reduction in revenues to the City of Menlo Park from property taxes was discussed with the city. It appears that there will be an offsetting reduction in cost of services the city now supplies the properties affected by the highway. A reduction in sales tax revenue to the city might be expected due to acquisition of commercial properties along Willow Road. This would probably not materialize because the consumers will find other areas in the city to shop and continue to supply the city with approximately the same amount of revenue.

The Adopted Routing would cause a 4.2 percent reduction in the tax base of the Ravenswood School District.

J. Emergency and Community Services

The "E" Line will facilitate traffic flow in this east-west corridor and will, therefore, facilitate fire and police protection and ambulance service throughout the area. No adverse effects to these services are known.

Services from emergency equipment would be considerably improved by the adopted freeway location due to a fully controlled high-speed facility for east-west travel which does not exist today.

K. Multiple Use of Space

Since the depressed or partially depressed section is proposed west of Route 101, there may be an opportunity for multiple use of space. However, no suggestions for multiple use have been proposed. East of Route 101 it is physically possible to viaduct the expressway over the salt ponds and managed wet areas but at considerable extra cost.

No multiple use of space has been proposed for the adopted line.

ENVIRONMENTAL FACTORS AND ECOLOGICAL IMPACT

A. Conservation

1. Erosion

The proposed roadway will be extensively landscaped and have numerous retaining walls which will assure maximum erosion control.

2. Sedimentation

Restoration of San Francisquito Creek at the two crossings will involve replanting to park-like standards. A minimum of sedimentation will be caused by construction; however, complete restoration to clear stream flow is expected to be accomplished.

3. Fish and Wildlife

Only small ponds are found in San Francisquito Creek during the summer. Aquatic wildlife appears limited to indigenous mosquito fish, squawfish and frogs. Nonaquatic wildlife appears to include only small animals such as squirrels, mice and other rodents and

small birds. The two creek crossings would provide adequate openings for such wildlife passage along the creek bed.

East of the railroad to Dumbarton Bridge, a small area of wetlands, now in the existing right of way, would be lost with construction of a wide fill for the expressway although elevated structures could be built at considerable extra cost.

4. Vegetation

Restoration and even overreplacement of existing vegetation should result from the landscaping treatment proposed for the expressway which will include preservation of existing plants and trees where possible.

The same is true for the adopted line.

5. Other

As proposed by the cities, a linear park along San Francisquito Creek is planned which will use excess parcels created by the Route E expressway. This park and its landscaping features are sure to be an improvement to the conservation of the native environment in what is now a small city development along the creek channel.

The linear park concept does not fit the adopted alignment.

B. Public Health and Safety

1. Noise

Considerable improvement in the traffic noise level of local streets will result by removal of traffic to either the Adopted Routing or the Route E expressway. By depressing or partially depressing the expressway and by extensive use of walls, earth mounds and landscaping, it is believed that the noise level along the new roadway can be kept to an acceptable level.

As much of the adopted line is elevated, it would be more difficult to keep noise levels from vehicles on the freeway within acceptable limits.

Detailed discussion of noise impact on schools, hospitals, parks and neighborhoods have been covered in preceding sections.

2. Air

The traffic studies show that most of the vehicles which will be using this facility will originate or terminate their journey in the affected community. Since air pollution caused by vehicular emissions is greater for a given distance traveled when the vehicle is operated at low speeds in stop-and-go traffic similar to what is found on local city streets, the Route E expressway is expected to reduce vehicle pollution because it provides a smoother flowing, higher speed corridor for traffic. The Adopted Routing would result in even greater improvement in the per-vehicle reduction of emissions.

Furthermore, the construction of the first section of the project would not begin until after 1975. Recent State and Federal legislation requires that by this time the auto industry must reduce new vehicle emissions as much as 77 percent from the 1970 levels. Current indications are that the auto industry will be able to comply. Additional legislation is currently under consideration which would further reduce the acceptable limits of vehicular emissions and other legislation is being sought which would control the emissions from the automobiles now on the highways.

Dispersal of vehicle emissions is assisted by the prevalent wind patterns in the vicinity. The wind patterns at nearby Moffett Field are reported to be on the line of northwest to southeast. Since these winds cross both route alternates approximately at right angles, they will tend to prevent the concentration of emissions in any excavated or low areas. Both route alternates pass on the prevailing downwind side of the Children's Hospital at Stanford and the Veterans' Hospital.

3. Water Quality

Proper restoration of the natural vegetation at the San Francisquito Creek realignment will prevent any loss of water quality in the stream.

4. Flood Potential

The project will be coordinated with the appropriate flood control agencies to make sure the channel capacity will not need to be reconstructed at such a time as flood control works may be constructed by the other agencies.

C. Aesthetic Values

The most important aesthetic features to be preserved along the "E" Line are as follows:

1. The Palo Alto Tree historical site.
2. San Francisquito Creek and its adjacent natural ecology.
3. Large specimen trees in various locations in and adjacent to corridor.
4. Bay view from Route 101 interchange to Dumbarton Bridge.

The important aesthetic features to be preserved along the adopted line are similar to the "E" Line. However, potential disruption to the Palo Alto Tree and the San Francisquito Creek in the vicinity of El Camino Real is greater on the "E" Line. Mitigation measures proposed through development of a linear park more than offset these disadvantages.

Special features of design and construction are proposed to include retaining walls with textured facing, and/or other variations; aesthetic acoustical walls in place of fencing at the right of way line; New Jersey barrier wall at the shoulders in cut sections to permit widening and planting of trees; and New Jersey safety barrier when the median is reduced to 25 feet.

As previously discussed, landscaping treatment will be selected with great care to create an attractive setting for both motorists and the adjacent community areas.

D. Impact on Agriculture

No agricultural lands are affected by either line.

COSTS AND ECONOMIC DATA
SANTA CRUZ AVENUE TO DUMBARTON BRIDGE (6.4 MILES)

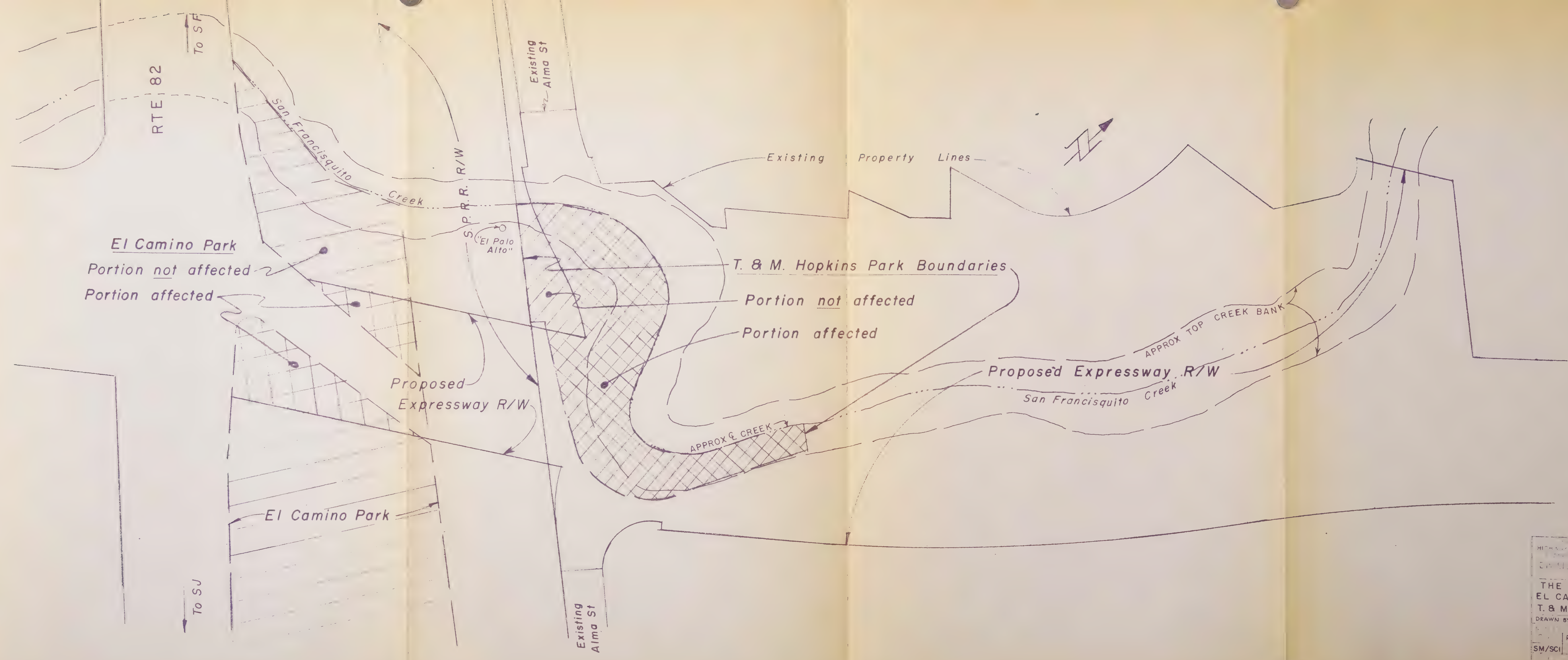
	Adopted Line Freeway	"E" Line Expressway *(North Alignment)	"E" Line Expressway *(South Alignment)
<u>Construction Costs</u>	\$42.0 Mil.	\$22.8 Mil.	\$22.8 Mil.
<u>Right of Way Costs</u>	\$26.3 Mil.	\$22.6 Mil.	\$21.4 Mil.
TOTAL COSTS	\$68.3 Mil.	\$45.4 Mil.	\$44.2 Mil.
<u>Improvements Required</u>			
Single family residential	455	186	185
Multiple family residential	88	66	30
Commercial	19	36	32
Industrial	0	4	4
Others	5	4	3
TOTAL IMPROVEMENTS	567	296	254
<u>Living Units Affected</u>	665	428	268
Jobs Affected	---	130	129

*2 alternatives in Belle Haven - East Palo Alto area.

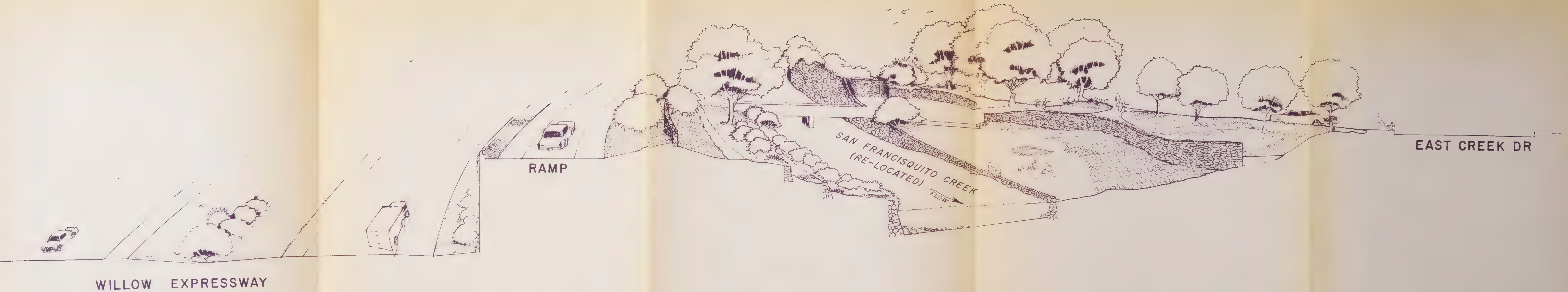
North alignment goes through apartments.

South alignment goes through industrial park.





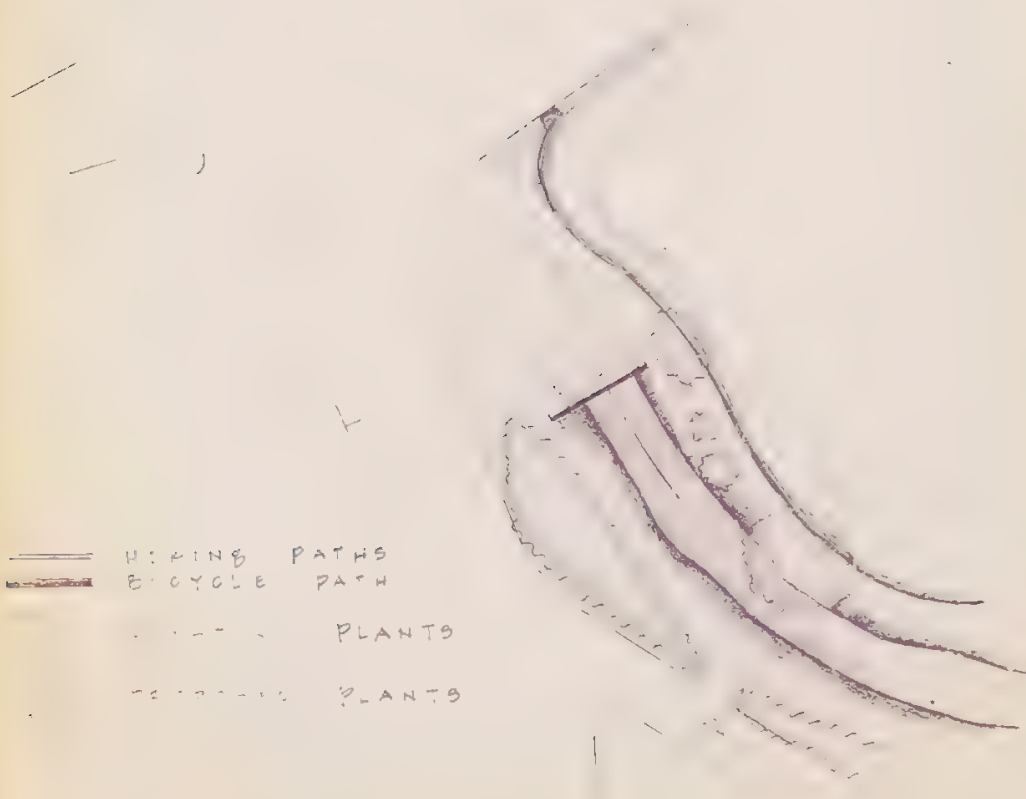
THE EFFECT ON
EL CAMINO PARK &
T. & M. HOPKINS PARK
DRAWN BY A.A.A. Spring '71
No Scale
RTE
SM/SCI 84 04106-210700



LINEAR PARK CONCEPT
VICINITY OF ALMA STREET
LOOKING WEST

EXHIBIT E

RD
MIDDLEFIELD





EXISTING WILLOW RD

WILLOW EXPRESSWAY

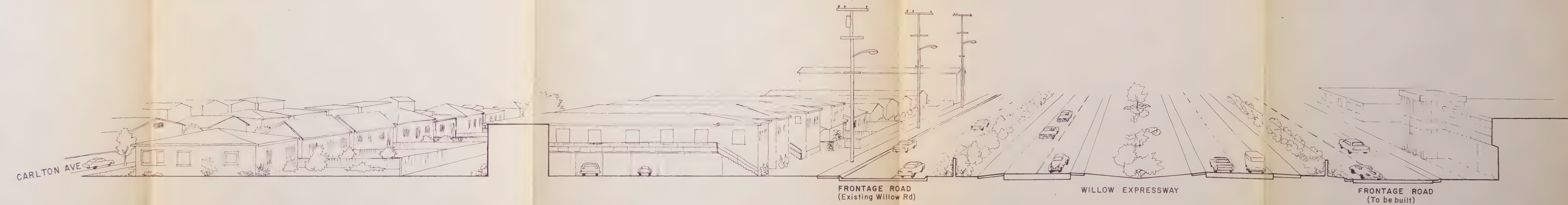
TYPICAL SEMI-DEPRESSED EXPRESSWAY SECTION

EAST OF MIDDLEFIELD ROAD – VICINITY OF DURHAM STREET

LOOKING EAST

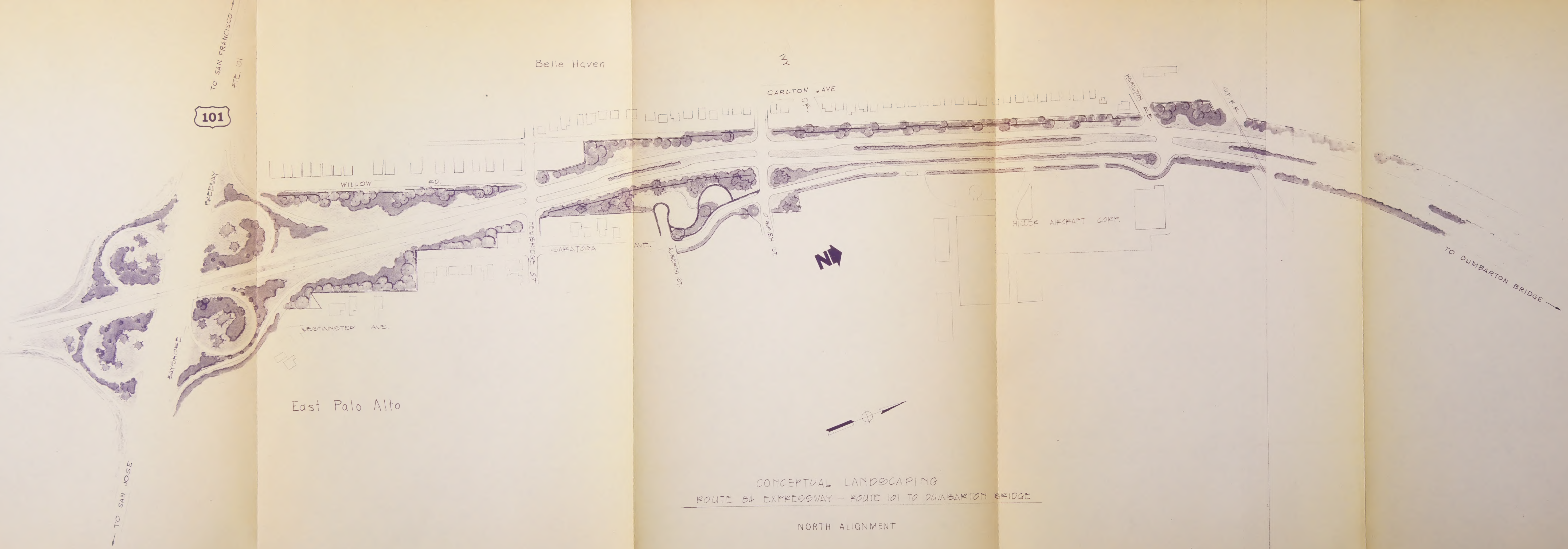


LOOKING EAST
ALIGNMENT NORTH OF WILLOW ROAD



LOOKING EAST
ALIGNMENT SOUTH OF WILLOW ROAD

EAST OF ROUTE 101 - VICINITY OF IVY DRIVE



STATE AND FEDERAL AGENCIES
NOTIFIED OF PUBLIC HEARINGS

STATE AGENCIES

State Lands Division
Department of Conservation
Department of Parks and Recreation
Department of Navigation and Ocean Development
Division of Aeronautics
Department of Agriculture
Department of Water Resources
Department of Fish and Game
University of California
California State College System
State Air Resources Board
Department of General Services
Office of Architecture and Construction
State Office of Planning
State Cemetery Board
Interagency Council of Ocean Resources
Council of Intergovernmental Relations
Division of Bay Toll Crossings
Public Utilities Commission
San Francisco Bay Regional Water
Quality Control Board (No. 2)

FEDERAL AGENCIES

Office of Economic Opportunity

Civil Rights Coordinator
Department of Health, Education and Welfare

12th Coast Guard District

National Park Service, Western Region

Chief, Airport Branch
Federal Aviation Administration

Federal Highway Administration

District Engineer
U.S. Army Corps of Engineers

Federal Water Pollution Control
Administration

Bureau of Outdoor Recreation
Department of Interior

Bureau of Sports Fisheries and Wildlife

Bureau of Reclamation

Regional Administration
Department of Housing and Urban Development

Federal Housing Administration

National Highway Safety Bureau